# THE NEOLITHIC OF JORDAN (EAST BANK)

INAUGURAL-DISSERTATION
zur
Erlangung des Doktorgrades
der Philosophischen Fakultät der Freien Universität Berlin

vorgelegt von

Zeidan Abdel-Kafi Kafafi
aus Jordanien

Berlin 1982

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Referent: Prof. Dr. Hans Jörg Nissen
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To my wife Fayzeh

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# CHAPTER I

# INTRODUCTION

# CHAPTER I

## INTRODUCTION

In the last few years many archaeological excavations and surveys have in Jordan have revealed its Neolithic past.

This thesis will deal with both unpublished and published Neolithic material found in Jordan, focusing on unpublished survey material found in the Jordan valley during 1975 and 1976. The survey was carried out by the Department of Antiquities, the University of Jordan and the American Schools of Oriental Research under the directorship of M. Ibrahim, K. Yassin and J. Sauer, respectively. The permission to use the survey material in this dissertation was generously granted by these scholars and Dr. Adnan Hadidi, General Director of the Department of Antiquities.

Three chapters are included in this thesis.

Chapter I, the introduction, deals with terminology and chronology. The opinions of various scholars are presented and discussed in this chapter. Finally, a list of definition is given by the writer.

Chapter II is a presentation of the published Neolithic materials of Jordan. In this chapter an attempt is also made to make a comparison with published material from the neighbouring areas of Palestine, Syria, and Lebanon. Tables summarising published information are also presented.

Chapter III is the main chapter and the back-bone of this work. It deals with the unpublished materials from the Jordan Valley. In this chapter we attempt to place this material in a chronological sequence by comparing it to published Neolithic materials from the Syro-Pale-

stine area. Since no C14 dates from Jordan are available (except from Beidha), and no sites representing the whole Neolithic period have been excavated, a comparative study is indispensible.

In pursuing this research, I have been faced with many problems concerning chronology, terminology, the varying opinions of different scholars, the scanty evidence from certain sites, and the insufficient number of C14 dates. Bearing these problems in mind, I will now discuss the definition of the term "Neolithic" as used here, review the history of exploration in this period, and firstly discuss questions of periodization and chronology.

The term Neolithic is used here in a wide sense. Broadly speaking, Neolithic as opposed to Palaeolithic or Mesolithic culture is characterized by the exploitation of domesticated plants and animals, permanent settlements, and the introduction of new techniques in stone work and ceramic manufacture. Childe described the transition from hunting and foodgathering to a food-producing economy as an economic revolution (Childe 1952:23). The word "revolution" has been critized by some scholars, such as Helbaek, who described the transition as an evolution and not a revolution, since revolutions happen quickly, but the transition from food-gathering to a food-producing economy appears to have been a gradual process.

Uerpmann agreed with Childe's thesis that specific economic conditions define the Neolithic (Uerpmann 1979: 10, 13). However, he does not include the PPNA phase within the Neolithic, since PPNA shows an absence of remains of domisticated animals (Uerpmann 1979:10). For Uerpmann the domestication of goat and sheep, and the use of small ruminants characterize the Neolithic in the Mediterranean area, signalling the first controlled

use of animals for economic purposes (Uerpmann 1979: 26). Uerpmann defines the Neolithic period as follows: "... daß das Neolithikum als jene Steinzeitperiode definiert wird, die sich von den vorhergehenden Perioden durch die Haltung und Zucht von Wirtschaftstieren unterscheidet" (Uerpmann 1979:27). Thus, the Neolithic is characterized by the keeping and breeding of animals for economic purposes. In his definition the end of the Neolithic is demarcated by the appearance of metal (Uerpmann 1979:27). For the time preceeding the Neolithic Uerpmann uses the term "Proto-Neolithic", a time period in which animals were not domesticated but wild cereals were used, as in the earliest levels at Jericho (Uerpmann 1979:39-42). For Mellaart, however, the term "Proto-Neolithic" seems rather premature for Jericho, as he finds no querns or mortars in this phase (Mellaart 1975:40-41). In our opinion, the term Proto-Neolithic may be used to denote an overlapping phase between the Natufian and Neolithic cultures

Although begun in 1929, the excavations of Tuleilat el-Ghassul yielded very little Early Neolithic (PPNB phase) material at that time (Mallon, Koeppel, and Neuville 1934). New material of Neolithic date from Tuleilat el-Ghassul has been reported by B. Hennessy (lecture at the first international conference on the History and Archaeology of Jordan, Oxford, 1980), and C14 dates confirm its early date. This material is not included here.

The first discovery of a Neolithic site was that of site B at Wadi Dhobai, found by Sir A. Kirkbride and later excavated by J. d'A. Waechter and V.M. Seton-Williams. It was dated to the Early Neolithic (Phase PPNB), and gave its name to a class of material called Dhobanian (Waechter and Seton-Williams 1938:174).

In 1953, H. de Contenson and J. Mellaart carried out soundings at Tell esh-Shuneh North, Tell Abu Habil

and Tell es-Sa'idiyeh el-Tahta in the Jordan Valley (de Contenson 1960b). At Tell esh-Shuneh six strata were excavated and were dated by de Contenson to the Chalcolithic, Early Bronze, and Medevial Arabic periods (de Contenson 1960b:58). Stratum I, dated to the Middle Chalcolithic by the excavator, should be dated to the last phase of the Neolithic period. This is supported by the similarity of the pottery from this stratum and that from Megiddo XX, Beth-Shan Pits and Level XVIII and Tell el-Far'ah I, as well as parallels with some of our material from the Jordan Valley which will be discussed below.

J. Mellaarts investigations at Ghrubba - a site located on the southern edge of the Wadi Nimrin, ca. 2 km. west of the main Jerusalem-Amman road - led him to the conclusion that the sherds uncovered at this site should be dated to a period earlier than Jericho XI/PNA, VIII/PNB, and the Yarmukian (Mellaart 1956:33). This claim, it seems to us, should be revised in the light of the excavations of Munhatta, where level 2B2 yielded Yarmukian and Jericho IX/PNA pottery vessels (Perrot 1966b:270; 1967:3,5; 1969:144). This pottery assemblage consisted of painted, painted and incised, and burnished ware, as well as plain or coarse ware (Mellaart 1956:29). Based on recent excavations, Ghrubba should be placed at the beginning of Late Neolithic 2.

Beidha may be singled out from among the other Neolithic sites as being of particular importance both for the quality and quantity of work done there. Beidha, located in the southern part of Jordan, was excavated for seven seasons beginning in 1958. Two distinctive cultures were observed, the Natufian in Levels XII - VII, and the Early Neolithic (PPNB) in Levels VI - I (Kirkbride 1960b; 1960c; 1962a; 1962b; 1963; 1964; 1966; 1966a; 1966b; 1967a; 1967b; 1968; 1968b). In addition

to Beidha D. Kirkbride conducted soundings at Wadi el-Yabis (Kirkbride 1956). Tell Abu es-Suwwan (Kirkbride 1958), and 'Ain Abu Nkheileh (Kirkbride 1960f; 1978).

The as yet unpublished excavations at 'Ain Ghazal undertaken by Gary O. Rollefson in the winter and spring, of 1982, yielded three White Ware vessels, chipped stone artifacts (obsidian and flint), ground stone artifacts, human and animal figurines, clay objects, bone tools, ornaments, shells from the Mediterranean coast, and architectural remains with red plastered floors. The excavator considers this site one of the largest PPNB village sites as yet identified in the Levant, perhaps larger by half than Jericho and far more immense than Beidha (G. Rollefson personal comm.).

In addition to these and other minor excavations, many surveys have been undertaken in Jordan since 1920. Henry Field of the Peabody Museum of Archaeology and Ethnology at Harvard University has done valuable work surveying in the eastern desert of Jordan (Field 1960).

The most extensive exploration of the East Bank of Jordan was done by Nelson Glueck in the years between 1930 - 1947 (Glueck 1930; 1935; 1939; 1951a; 1951b). Although the aim of his explorations was to look for biblical sites, Glueck noted others dating to the "Stone ages", such as Tell Abu Habil and Tell es-Sa'idiyeh (Glueck 1951a:432,484).

More recently surveys have been conducted by many scholars, e.g. S. Mittmann in the northern part of Jordan (Mittmann 1970); Garrard and Price in the al-Azraq area and the Wadi Rum (Garrard and Price 1975; 1977); Zeuner, in the Wadi Rum (Zeuner 1957); and T. D. Raikes in the Wadi 'Arabah (Raikes 1980). One should also note the survey carried out in 1978 on the King's Talal Dam Reservoir, the Maqarin Dam and the Wadi 'Arab

area (Kerestes et al. 1977-1978), and the survey of the Wadi el-Hasa in Fall 1979 (MacDonald 1980).

The unpublished pottery and flints presented below were collected at different sites in the Jordan Valley in 1975 and 1976, during a survey conducted by the Department of Antiquities, the University of Jordan, and the American Center of Oriental Research in Amman represented by M. Ibrahim, K. Yassin and J. Sauer respectively. Of the 214 sites visited in this survey 30 were considered to be related to the Neolithic/Chalcolithic period by the surveyors (Ibrahim, Sauer and Yassin 1976). The main aim of this work is to situate these materials in their Neolithic or Chalcolithic contexts.

Different terms have been given to the phases of the Neolithic culture. Based on the architecture changes, Kenyon termed the Pre-Pottery Neolithic phases of Jericho, Pre-Pottery Neolithic A (PPNA) represented by circular structures; and Pre-Pottery Neolithic B (PPNB) distinguished by rectangular structures. Also to the levels in which pottery has been encountered she gave the terms Pottery Neolithic A (PNA) and B (PNB) (Kenyon 1953).

Various scholars have given different names to the phases of the Neolithic culture, often after the sites on which remains of these phases were found. In 1928, Pére Buzy surveyed the area of the Wadi Tahuneh, ca. 3 km. to the south of Bethlehem; the stone industry which he collected was thus named Tahunian. This name has been used by many archaeologists, such as Neuville, in describing the material from the upper layer, at el-Khiam (Neuville 1933), and Garstang in speaking of the excavated Early Neolithic (PPNB) artifacts from Jericho.

G. Echegaray, who re-excavated el-Khiam in 1962, accepted the name Tahunian only for the upper levels, but instead of using Neuville's term Natufian IV for the

level directly below these he created the term Khiamian (Echegaray 1966).

Payne has suggested the name Sultanian for the Early Neolithic (PPNB) industry at Jericho (Tell es-Sultan), to stress the importance of Jericho in this phase (Payne 1976:134). Similarly, the excavated materials from Site B, in the Wadi Dhabai were termed Dhobanian by the excavators (Waechter and Seton-Williams 1938:174), while the name Ghassulian was given to the materials found at Tuleilat el-Ghassul.

Albright termed Jericho IX Jerichoan, and Jericho VIII Yarmukian (Albright 1971:49). He proposed the following chronological table (Albright 1971:49).

| | |
|---|---|
| Kebaran Stage (food-gathering) | to ninth millenium B.C. |
| Natufian (incipient food-producing) | Ninth to Early seventh millenium B.C. |
| Pre-Pottery Neolithic | Early seventh to late sixth millenium B.C. |
| Pottery Neolithic | Late sixth to the end of the fifth millenium B.C. |
| Chalcolithic | End of the fifth to the end of fourth millenium B.C. |
| Jericho VIII, etc. | Between 4ooo and 36oo B.C. |
| Ghassulian | Between 37oo and 33oo B.C. |
| Late Chalcolithic | Between 34oo and 3ooo B.C. |

The name Yarmukian was first assigned to the materials uncovered at Sha'ar ha-Golan on the Yarmuk River. Instead of the terms "Pre-Pottery" and "Pottery Neolithic", the excavator Stekelis divided the Neolithic Culture into "Pre-Caramic", "Aceramic" and "Ceramic" (Stekelis 1972: 36). His "Pre-Pottery Neolithic" Phase included Jericho PPNA, PPNB, and Wadi Fallah (Nahal Oren) I, II; his "Pottery Neolithic" Phase the Yarmukian and Jericho PNA.

Jericho VIII/PNB was assigned by Stekelis to the Chalcolithic period, and it was assumed that the Yarmukian Culture and Jericho IX/PNA were contemporary (Stekelis 1972:43,44). He set up the following chronological table:

| | | |
|---|---|---|
| "Mesolithic | End of the Natufian | ca. 8000 B.C. |
| Neolithic | Usbaian | ca. 7500 B.C. |
| | Yarmukian | ca. 5500 B.C. |
| Chalcolithic | Beginning of Ghassulian | ca. 4500 B.C." |

(Stekelis 1950-51:19).

J. Kaplan disagreed with Stekelis' belief that the Yarmukian Culture was earlier than that of Jericho IX/PNA contending that Stratum XX at Megiddo was a mixture of Neolithic and Chalcolithic (Kaplan 1959:19-20), and that Jericho VIII/PNB and Wadi Rabbah were related to the Chalcolithic period (Kaplan 1959:22; 1960:32-36). He correlated Jericho IX with Mersin XXIV (Kaplan 1969: 197-199; 1977:291-292).

Broader, geographical designations have also been taken into consideration in naming Neolithic assemblages. The term Coastal Neolithic has been used for the industry found in Northern Palestine and along the Mediterranean coast (Anati 1963:269; de Vaux 1966:16).

More generally, A.M.T. Moore originally suggested the term Early Neolithic for the period covering the Pre-Pottery Neolithic A and B at Jericho, the Neolithic Levels I-VIII at Beidha, and Levels 6-3 at Munhatta; and Late Neolithic for the period covered by Pottery Neolithic at Jericho, Level 2 at Munhatta and the Yarmukian (Moore 1973:36). He divided the Late Neolithic into two subphases, 1 and 2. Late Neolithic 1 included Jericho IX/PNA, Lydda, Batashi IV, Wadi Rabbah, Tell ed-Duweir, Megiddo XX, Beth-Shan, Kfar Gil'adi, and Hagosherim in Palestine. This subphase was paralleled with Tell 'Ain Nfaikh, Tell Ard Tlaili, Tell

Neba'a Faour in the Bega' in Lebanon (Moore 1973:56; Copeland and Wescombe 1965, 1966), and with Tell Ramad III, and Middle Neolithic Byblos in Syria.

Subphase 2 was characterized by developments in architecture and changes in pottery styles. Belonging to this subphase are the following: Jericho PNB, Tell el-Far'ah I, Murabba'at, Wadi Ghazzeh Site D, Tell esh-Shuneh I, Tell Abu Habil I, Beth-Shan Pits and Level XVIII, Sha'ar ha-Golan, Munhatta 2B, Megiddo, Hamidiyeh, Sheikh 'Ali, the earlier phase at Tell Turmus, Wadi Rabbah, Tuleilat Batashi III, and Hazorea (Moore 1973:57-63).

We agree with Moore that the Neolithic may be divided into Early and Late Neolithic, and the Late Neolithic phase may be subdivided into two subphases, but we disagree with him in particulars, for instance in relating some of the excavated Neolithic sites to the Late Neolithic 1, e.g. Megiddo XX and Beth-Shan which in our opinion are paralleled with Jericho VIII/PNB.

Later, Moore refined his system by using the terms Neolithic 1,2,3 and 4 (Moore 1978). The Neolithic Culture 1 represented the Epi-Palaeolithic and included the Proto-Neolithic, and PPNA at Jericho (Moore 1978: 150). Neolithic 2 included Jericho PPNB, Munhatta 6-3 and Beidha PPNB (Moore 1978:211-226). Jericho IX/PNA, Tuleilat Batashi IV, Megiddo XX, Munhatta 2B, and Sha'ar ha-Golan constituted Neolithic 3 (Moore 1978: 359-380). Finally, Neolithic 4 was identified with Jericho VIII/PNB, Murabba'at, Ghassul, Tell es-Sa'idiyeh el-Gharbi, Salihi, Tell el-Far'ah, Munhatta 2A, Sheikh 'Ali Ib,c,II, Wadi Rabbah Structures B and C, Tuleilat Batashi III, and Megiddo XX (Moore 1978: 453,460). Moore proposed the following chronology for these periods:

| | |
|---|---|
| "Mesolithic 2 | 10.000 - 8500 B.C. |
| Neolithic 1 | 8500 - 7000 B.C. |
| Neolithic 2 | 7000 - 6000 B.C. |
| Neolithic 3 | 6000 - 5000 B.C. |
| Neolithic 4 | 5000 - 3500 B.C." |

(Moore 1978:498; Table 2).

In a paper given at the first international conference on the history and archaeology of Jordan, James Sauer proposed the terms Early, Middle, and Late Neolithic based on his studies on pottery assemblages (Sauer 1980:5-9).

G.E. Wright argued that Jericho VIII/PNB was a part of the Chalcolithic Culture, and connected it originally with "Armuq D (Wright 1951:53), and later with 'Amuq A-B. He termed the period between 8000-5000 B.C. as Tahunian and Jerichoan, and the period between 5000-3500 B.C. as Late Neolithic and Early Chalcolithic (Wright 1961:78-79).

J. Perrot proposed the following chronology (Perrot 1968:445-446):

| | |
|---|---|
| - 9000 B.C. | Natufian, Mallaha, Beidha etc. |
| 8000 - 7000 B.C. | Jericho PPNA, Nahal Oren |
| 7000 - 6000 B.C. | Beisamoun, Jericho PPNB, Munhatta 3-6, Beidha |
| 6000 - 5000 B.C. | Hiatus |
| 5000 - 4000 B.C. | Yarmukian, Munhatta, Wadi Rabbah Phase |
| 4000 - 3000 B.C. | Ghassulian |

De Contenson rejected Perrot's idea that Tell esh-Shuneh I and basal Beth-Shan be related to a later perriod than Jericho VIII/PNB, and pointed out that these materials were similar (de Contenson 1966:2). He noted that the Yarmukian Culture should be placed in the same range as Jericho IX/PNA, but earlier than Ghrubba and Jericho VIII/PNB. This view was adopted by him following

a typological study of the stratified material from Muhatta (de Contenson 1966:3). He assumed that the Yarmukian Culture was equal to the Néolitique Moyen of Byblos, Ras Shamra IV and 'Amuq D. De Contenson published the following archaeological table (de Contenson 1966:4-5):

| | |
|---|---|
| 8000 - 7.500 B.C. | Natufian at Mallaha, Wadi Fallah, Jericho, el-Khiam B 2-5, Beidha, and Jericho Proto-Neolithic |
| 7500 - 7000 B.C. | Wadi Fallah Tahunian, Jericho PPNA, el-Khiam B 2-5 |
| 7000 - 6500 B.C. | Wadi Fallah Tahunian, Jericho PPNB, el-Khiam A1, Beidha I-IV |
| 6500 - 6000 B.C. | Bouqras I, Ras Shamra VC, Ramad I, Sheikh 'Ali 3-4, Munhatta 3-6, Far'ah Tahunian, Jericho PPNB |
| 6000 - 5500 B.C. | part of Bouqras II, 'Amuq A, Ras Shamra VB, Byblos Neolithique Ancien, Ramad II, III |
| 5500 - 5000 B.C. | 'Amuq B, Ras Shamra VA, Byblos Enéolithique Ancien |
| 5000 - 4500 B.C. | 'Amuq C, Ras 'Shamra IV, Byblos Enéolithique Moyen |
| 4500 - 4000 B.C. | 'Amuq D, Ras Shamra IV, Byblos Enéolithique Moyen, Kfar Gil'adi III, Sheikh 'Ali 2, Munhatta 2B, Yarmukian, Batashi IV, Jericho IX/PNA, Ghrubba 5-12 |
| 4000 - 3500 B.C. | 'Amuq E, Ras Shamra IIIC, Byblos Enéolithique Récent, Sheikh 'Ali Ic, Munhatta 2A, Megiddo XX, Far'ah Chalcolithic Moyen, Wadi Rabbah I, Batashi IIIc, Jericho VIII/PNB |
| 3500 - 3000 B.C. | 'Amuq F, Ras Shamra IIIB, Byblos Pré-urbain and Enéolithique, Kfar Gil'adi II, Sheikh 'Ali Ib?, Shuneh I and II, Munhatta 1, Megiddo XIX-XX, Far'ah Chalco. Sup., Wadi Rabbah II, Batashi III a,b, Jericho VII, Ghrubba O-4, Beer-Sheeba 1-3" |

J. Mellaart, the excavator of Ghrubba, assumed that this site was later than Jericho IX and Sha'ar ha-Golan (Mellaart 1956:33; 1975:15,240). Based on Munhatta's stratigraphy Ghrubba's Levels 5-15 may be placed between the Yarmukian, Jericho IX and Jericho VIII. Mellaart proposed the following chronology (1975:15) based on C14 dates:

| | |
|---|---|
| 4200 - 4000 B.C. | Proto-Ghassulian |
| 4500 B.C. | Wadi Rabbah |
| 4600 B.C. | Jericho PNB |
| 4900 B.C. | Upper Ghrubba |
| 5100 B.C. | Lower Ghrubba and Munhatta Phase |
| 5400 B.C. | Yarmukian and Jericho PNA |
| 5600 B.C. | Hagosherim |
| 6000 - 5700 B.C. | Beisamoun aceramic, Abu Gosh |
| 6400 - 6000 B.C. | Munhatta 3-6, Jericho Late PPNB, Beidha I-III |
| 6650 - 6400 B.C. | Beidha IV-V, Wadi Fallah I |
| 7000 - 6650 B.C. | Wadi Fallah I, Jericho Early PPNB, Beidha VI-IX |
| 7350 - 7000 B.C. | Gap |
| 7650 - 7350 B.C. | Jericho Late PPNA |
| 8000 - 7650 B.C. | Jericho Early PPNA |
| 8350 - 8000 B.C. | Wadi Fallah II |
| 9250 - 8350 B.C. | Jericho Proto-Neolithic |
| 10000 - 9250 B.C. | Jericho Natufian, Beidha Early Natufian, Wadi Fallah I, el-Wad, Kebara |

R. de Vaux argued that the transitional period between the Natufian and the PPNA might be filled by the Proto-Neolithic Jericho and Wadi Fallah. He noted a large gap between the Pre-Pottery and the Pottery cultures, and added that some of the PPN sites were not occupied in the Pottery Neolithic period (de Vaux 1978: 33,36). We disagree with de Vaux's point of view of the gab between the PPN and the PN cultures based on the

material found at 'Ain Abu Nkheileh, which Kirkbride related to a period between these two cultures (Kirkbride 1978:9). A problem lies in the presence of the White Ware in the Pottery Neolithic levels at different sites in Northern Syria and Lebanon such as Ramad II and Hama (Mellaart 1975: 62). The White Ware was originally found in most excavated PPNB sites in Syria, but it was recently found at 'Ain Ghazul, near Amman, in the East Bank of Jordan. De Vaux proposed the following chrònological sequence:

" - Coastal Culture (ca. 5ooo B.C.) cf.
'Amuq C, Ras Shamra VA-B,IVc,
Early Neolithic of Byblos

- Jerichoan:cf. 'Amuq D, Ras Shamra IVA-B, IIIC,
the Middle and Late Neolithic of Byblos

- Yarmukian: cf. Byblos Middle Neolithic"

(de Vaux 1978:38).

D. Kirkbride agreed with Perrot that the hiatus between the PPNB Culture and the Pottery Neolithic Culture was the result of climatic change, and that the climate at that time was both hotter and drier than before (Kirkbride 1971:282). She adopted the following chronological sequence based on the excavations of Munhatta:

"Jericho PNB/VIII
Wadi Rabbah
Ghrubba
Yarmukian
ca. 58oo B.C. Jericho PNA/IX"
(Kirkbride 1971:284)

If we study the material from Jericho precisely we find that there is no doubt that PPNA and PPNB form two separate entities. Yet Kenyon's emphasis on stressing the differences can not be fully accepted since one of her main arguments was based on changes in the architecture. The circular houses were assigned to the

PPNA, whereas the rectangular ones to the PPNB. According to Mortensen and others this assumed change should not be taken as an adequate criterion (Mortensen 1970: 4), since circular houses appeared in PPNB levels at Beidha and 'Ain Abu Nkheileh. Moreover, the small number of the PPNA sites does not permit such a generalization. Accepting the relative closness of these two phases we term both PPNA and PPNB in addition to the Proto-Neolithic culture as "Early Neolithic". One of the most characteristic products of this culture (PPNB Phase) is the "White Ware" which is a composite of lime or gypsium and grey ashes.

The Early Neolithic is followed by a period characterized by the appearance of pottery. Although no Dark Faced Burnished Ware is yet attested on the East Bank of Jordan, it has been encountered at different sites in Palestine, Lebanon, Syria and Southern Anatolia. This marks the first appearance of pottery in the whole Mediterranean area. In Palestine this pottery is attested at Munhatta 2 (Perrot 1964), Sheikh 'Ali II (Prausnitz 1960a:120), Tuleilat Batashi IV (Kaplan 1958a: 83 "English Summary"), Wadi Rabbah (Kaplan 1958b:153-159), Kfar Gil'adi (Kaplan 1966:272; Lechevallier and Dollfus 1973a), Tell Turmus (Perrot 1963b:559), and Tell Abu Zureiq "Hazorea" (Perrot 1963b:559; Anati 1972:156). The vessels of this ware were made by coiling, were well fired with grit mineral inclusions, and show a dark brown, chocolate, grey-brown or blackish surface. Sometimes they were decorated with impressing as in 'Amuq A, or combed all over with a cardium shell as in the Early Neolithic of Byblos.

The term "Late Neolithic 1" is retained here for the PNA, Yarmukian, and related levels, following the sequence at Munhatta where Yarmukian and PNA pottery was found to be stratigraphically earlier than PNB.

We prefer the term "Late Neolithic 2" for PNB and

the material from Grhubba Levels 5-15, which seems to fall between Jericho VIII/PNB and IX/PNA. At Jericho PNB pottery was found in pits mixed with PNA pottery, while at Munhatta Perrot distinguished two different levels where PNA pottery was found beneath the PNB level.

To conclude, two different Neolithic periods, can in general be recognized, the Early including the Proto-Neolithic, and the Pre-Pottery levels characterized by a simple agricultural economy combined with hunting and gathering; and the Late distinguished by the appearance of pottery and pits dwellings in addition to houses.

The Neolithic period is followed by the Chalcolithic, characterized by the use of metal. Tuleilat el-Ghassul on the north-eastern side of the Dead Sea, is our main witness to this period in the East Bank of Jordan, as Beer-Sheba is in Palestine.

Following is a suggested chronological sequence based on the stratigraphy of both Munhatta and Jericho. These sites, located in the Jordan Valley, are the major stratified sites in the region. This suggested system, in our opinion, is more representative than the ones given above.

| | | | |
|---|---|---|---|
| ca. 4200 B.C. | CHALCOLITHIC | | Beer-Sheba<br>Tuleilat el-Ghassul I-III<br>Tuleilat el-Ghassul IV |
| | LATE NEOLITHIC | Late Neolithic 2 | Jericho VIII/PNB,<br>Munhatta 2A1<br>Ghrubba |
| | | Late Neolithic 1 | Jericho IX/PNA, Munhatta 2B2<br>Yarmukian, Munhatta 2B1 |
| ca. 6000 B.C. | | | |
| | | | 'Ain Abu Nkkeileh<br>Jericho PPNB, Munhatta 3-6<br>Beidha I-VI |
| ca. 7000 B.C. | EARLY NEOLITHIC | | |
| | | | Jericho PPNA, Wadi Fallah<br>Jericho Proto-Neolithic |
| ca. 8000 B.C. | | | |
| | | | Jericho Natufian |
| ca. 10000 B.C. | EPI-PALAEOLITHIC | | Beidha VII-XII |

CHRONOLOGICAL TABLE

# CHAPTER II
# THE PUBLISHED NEOLITHIC MATERIALS FROM JORDAN (EAST BANK)

## CHAPTER II

### THE PUBLISHED NEOLITHIC MATERIALS FROM JORDAN (EAST BANK):

Jordan (East Bank) is the area bordered by the Jordan River, the Dead Sea, and the Wadi 'Arabah to the west; the Yarmouk River and Syria to the north, Iraq and Sa'udi Arabia to the east; and Sa'udi Arabia to the south.

Geographically, the country can be divided vertically into three zones. Firstly we have to mention the depression of the Jordan Valley (the Dead Sea and the Wadi 'Arabah) which was created by several tectonic movements. This depression is part of the great Syrian depression (Rift Valley) which runs down from 'Amuq in northern Syria into the Red Sea and continues into Africa. Secondly, we see a straight line of mountain ranges running parallel to the eastern border of the Jordan Valley depression, from the Sea of Tiberias to the Gulf of Aqaba. Small rivers (Yarmouk, Zerqa), and large perennial streams or wadies (e.g. Yabis, Shu'eib, Mojib and Hasa) divide this mountain range into different areas. Thirdly, there is the desert, which constitutes a large part of the East Bank of Jordan.

Wood and minerals are the main natural resources. The mountain zone located in the area between the Rivers Yarmouk and Zerqa is covered with forests of small scrub oak, and in the 'Ajlun district there are some fine pine-forests. From the Yarmouk River to the Wadi el-Hasa the mountains consist of limestone; from the Hasa southwards, there is a gradual change from limestone to sandstone. In the area around Aqaba granite, basalt, shale, and occasional turqoise and amethyst occur. In the Wadi 'Arabah one finds deposite of copper and iron, and very small deposite of other minerals, such as manganese. Phosphate deposits at Ruseifeh and Hisa are currently on a large scale.

The western strip of the mountain range is the most cultivated part of the country, while the eastern side

is very arid. In the northeastern corner of Jordan the lava and basalt stops suddenly at the Azraq Oasis, which lies at the northern edge of the Wadi Sirhan.

The climate of Jordan is variable, with temperatures reaching ca. 40°C in the summer, with the average around 30°C. Rains start occasionally in November or December but are heaviest in January and February.

In order to build a scheme of reference for the unpublished material we will discuss all relevant material published sofar, utilizing the chronological scheme obtained above (p.17 ).

THE EARLY NEOLITHIC PHASE:

The Early Neolithic as defined here includes the Proto-Neolithic, PPNA and PPNB cultures.

Proto-Neolithic Phase: Kenyon's Proto-Neolithic is included here on the basis of the paleobotanical remains found in it. The term Proto-Neolithic was used for the material from the four meters of deposits excavated at Jericho in Squares MI,under the PPNA houses, and in E, above the Natufian Layer and under the PPNA houses (Kenyon 1981: 18,175,220). Traces of huts and curvilinear houses made mainly of clay were found here (Kenyon 1960:99).This period has been considered as an intermediate between the Paleaolithic and the Neolithic (Uerpmann 1979:39).

Kirkbride, who studied the flint industry of this phase, considered it has developed from the Natufian phase (Kirkbride 1960d:115). It is characterized by notched arrow-heads and bifacials.

Remains of hunted animals consisted of gazelle, cattle, boar and especially fox were found in the Proto-Neolithic levels at Jericho (Clutton-Brock 1969:337-345; 1971:41-55). Based on the available evidence it seems that there was no change in the economy of Palestine, from the Natufian phase and that people were still hunters and gatherers.

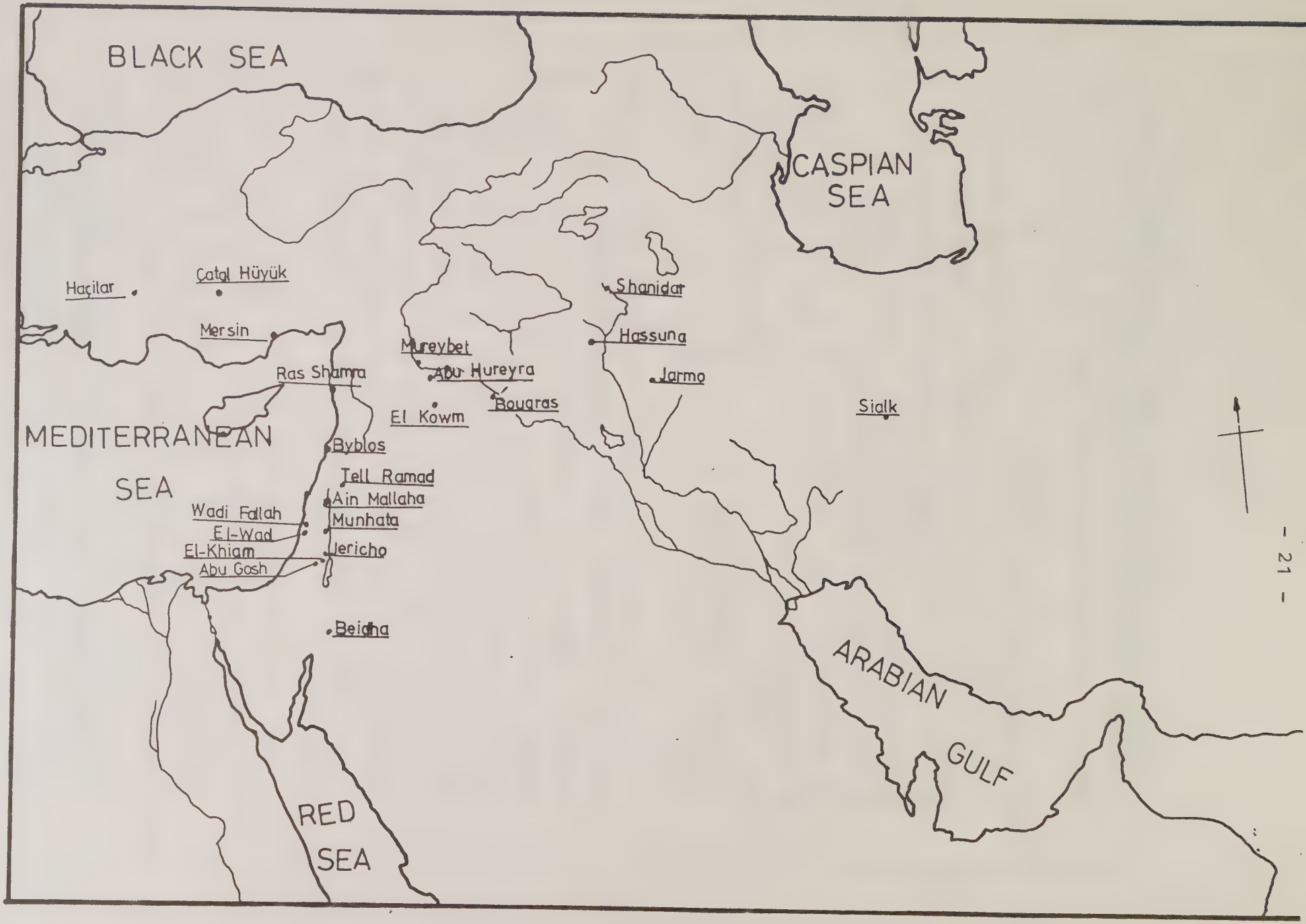


Fig. 1. Neolithic of the Levant

Nothing belonging to this phase has yet been found on the East Bank of Jordan, perhaps due to the small number of excavated prehistoric sites in the country.

Pre-Pottery Neolithic A Phase:

Above the Proto-Neolithic layer at Jericho, round houses built of plano-convex mudbricks ("hog-backed bricks") were found. These represent the PPNA period. Descending steps led to rooms built below ground level. On the west side of the excavating the inhabited area was bounded by a wall measuring 1.50 m. wide, preserved to a height of 3.90 m.. On the inner side of this wall was a tower, 8.50 m. in height, with a staircase built within it. Kenyon argued that the tower was used for defensive purposes (Kenyon 1956:69,195; 1956a:6-7; 1981: 6,269).

Round or elliptically shaped buildings have also been found at 'Ain Mallah "Eynan" (Perrot 1966c:437-460; 1969:4-6), dated to the Natufian period, and the Wadi Fallah "Nahal Oren", about 10 km. south of Haifa (Stekelis and Yisraeli 1963:5). Round structures have also been found in Phase III at Mureybit (van Loon 1968:266; Cauvin 1972:106; 1974:48) and at Tell Aswad (de Contenson 1977:40). The problem of the PPNA architectural design has been discussed by many scholars, such as Kenyon (1957c:82-84), Braidwood (1957:73-81), and Anati (1962: 25-31).

The flint industry typical of this period has been found at Wadi Fallah "Nahal Oren", el-Khiam, Gilgal and at Nahal Lavan "Site 108" in the Negev area of Palestine (cf. fig. 2). PPNA flint implements are characterized by notched arrow-heads, numerous burin types such as "Angle, Bec de flûte, and Single-blow"; borers with retouching on both sides; chisels; adzes; bifacial tools; large and rather irregular, but not narrow, sickle-blades; and large flake-blades. A few axes characterized

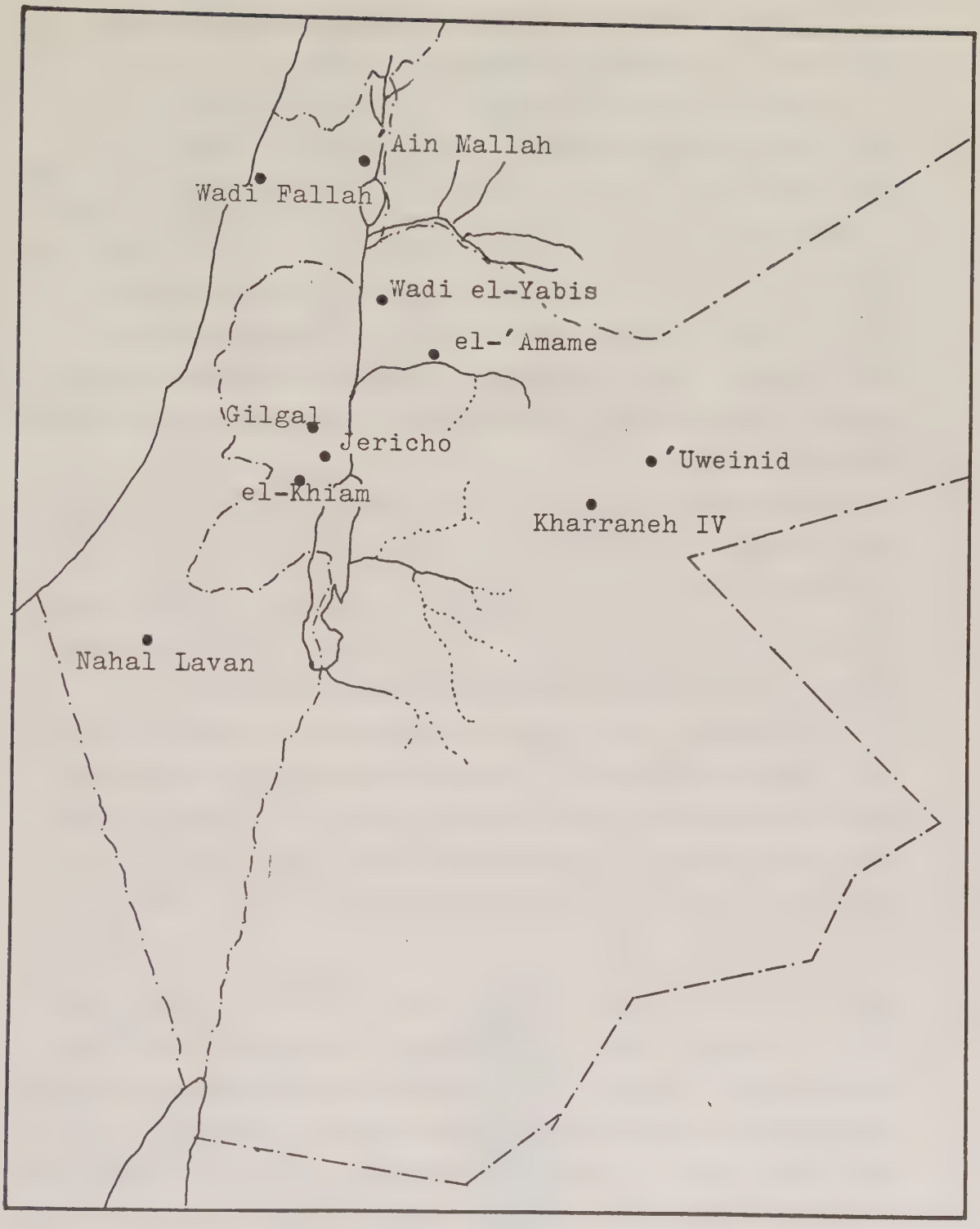


Fig. 2. Pre-Pottery Neolithic A Sites in Jordan

by transverse flaking, and most probably related to this culture, have also found at Wadi Fallah "Nahal Oren" (Noy, Legge and Higgs 1973:79,81).

Although traces of barely "hordeum distichum", wheat (tricticum dicoccum) and fig-pips (ficus) were found in the PPNA levels at Jericho (Hopf 1969:355-356), it seems that hunting still played a large role in the economy at this time. At Jericho as well as at Wadi Fallah ("Nahal Oren" the gazelle was the most commonly eaten animal (Zeuner 1955:70; Noy Legge and Higgs 1973:90-91). Lentils (vicia) and other seeds were also found at Wadi Fallah "Nahal Oren" (Noy, Legge and Higgs 1973:92).

It has been said by de Vaux that the economy of the PPNA phase was characterized more by trade than by agriculture. Obsidian tools from Anatolian sources are evidence of long-distance exchange. Jericho may have exported minerals from the region of the Dead Sea, such as salt, bitumen and sulphur (de Vaux 1966:7).

To conclude, as regards the economy in the PPNA period, there were still no domestic animals, but domestic wheat, barely and legumes were grow. Also, trade ware have played an important role, with the export of minerals from the Dead Sea region, and the import obsidian from central Anatolie.

Very few sites of this period have been found on the East Bank of Jordan. Among these may be mentioned Khirbet el-'Amame, found by Mittmann (Mittmann 1970:110), 'Uweinid 6A and 6B, Kharraneh IV, discovered by Garrard and Price in the el-Azraq area (Garrard and Price 1977: 118-120; fig. 2); and Wadi el-Yabis, which was found by D. Kirkbride and will be discussed below:

Wadi el-Yabis

Wadi el-Yabis was discovered in 1953 by Trevor Trought during the digging of a cistern for the Agri-

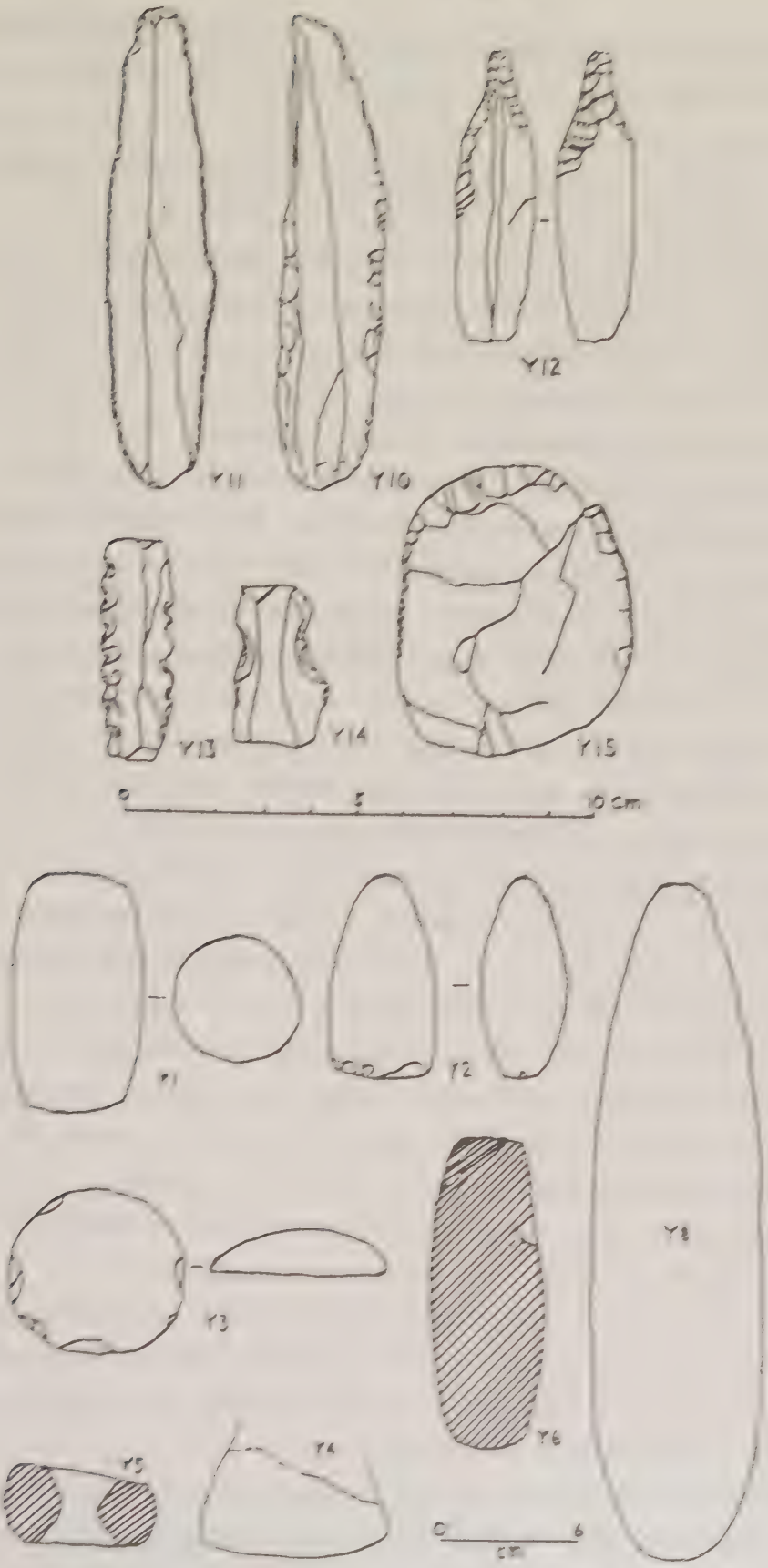


Fig. 3. Wadi el-Yabis (after D. Kirkbride 1956)

culture Research Station in Jordan. It was later tested by D. Kirkbride. The site is located in the eastern half of the Jordan Valley, between Deir 'Alla and the Village of Shuneh North, approximately one hundred yards west of the main road (Kirkbride 1956:56).

Six levels were excavated in the cistern pit. In the upper levels aquatic vegetation was encountered overlying pebbles, implements and bones. A few rough flakes were found, and Kirkbride argues that a stone industry earlier than the Neolithic is also present.

The fact that cores and waste flakes were found in the site, implies that the Wadi el-Yabis flint tools were of local manufacture. The flint industry consisted of long blades; one angle burin on a long blade; sickle-blades; notched blades; tanged long blades, worked bifacially across the surface of the point; and oval scrapers (fig. 3). The angle burin (Y10) and the notched blade (Y14) could be paralleled with some of those published from PPNA from Jericho (Kirkbride 1960d: pls. XIVA:I, XIVB:O). The published sickle-blade from Wadi el-Yabis (Y13), and the tanged blade (Y12), however, are different than those from Jericho and should be compared with those found at Sha'ar ha-Golan (Stekelis 1950-51: fig. 7:11).

In addition to the flint industry, groundstone artifacts were found at the site (fig. 3), namely cylindrical hammers some with shaft holes, possible pestles (Y8) some conical in shape with a flat-ended (Y4), a pointed-butt celt (Y2), flat-based disc, possible rubbers (Y3), and a stone ring with a biconical hole (Y5).

Kirkbride argues that the site of Wadi el-Yabis served as both a manufacturing and settlement area. This was supported by the recovery of unfinished implements from the site (Kirkbride 1956:57).

Comparing the Yabis industry with those from Tulei-lat el-Ghassul, Sha'ar ha-Golan and Jericho PPNB, she proposed a date for this site in the early phase of the

Neolithic culture (Kirkbride 1956:60). This is supported by the absence of pottery or polished celts.

Pre-Pottery Neolithic B Phase:

The Pre-Pottery Neolithic A Phase at Jericho was followed by the Pre-Pottery Neolithic B following a period of desert of undetermined length (Kenyon 1956:73; 1981:269). The material of this phase differs from that of the preceeding one in the following ways. On the one hand the flint industry is characterized by long, thin blades (Kirkbride 1960d:117), and querns are distinctive in that they have a double saddle and are without a rim at one end. On the other hand new architectural elements appeared in this period at Jericho. Houses were rectangular in shape, built of flattened cigar-shaped bricks. These bricks were thumb impressed (Kenyon 1956:72; 1981:11,270). Walls and floors were plastered, and sometimes covered with red paint (Garstang 1937:69; Kenyon 1981:11,175). A large central rectangular room, measuring 6 m. long by 4 m. wide, with a burnished plastered floor has been called a temple by Kenyon (Kenyon 1954:51).

The economy was still based on a combination of hunting and agriculture, and trade started to play an important role. At Jericho the first conclusive evidence of domestic animals (goat, dog and ibex) and wild animals (cattle and pig) remains were recognized (Zeuner 1955:70-75; 1958:52-55). Beidha shows an economy based on cultivation of cereals, collection of wild plants, and herding of goat, sheep or pig, in addition to hunting (Kirkbride 1966a:207). Stratum 3 at Muhatta in the northern part of the Jordan Valley yielded bones of cattle, goat, sheep and pig (Perrot and Tzori 1977:871). At Abu Hureyra, in the Aceramic Neolithic levels, a high frequency of gazelle along with sheep, goat, cattle and pig were represented (Legge 1975:75).

The bones collected at 'Ain Ghazal have not yet been studied.

At Jericho two-row hulled barely, emmer and einkorn seeds in addition to field pea, lentil and vetch legumes were exploited (Hopf 1969:355). The PPNB levels at Beidha showed that cereals, including two-row hulled barely and emmer were cultivated, meanwhile, wild plants including pistachio, acorns, and the seeds of several legumes were collected (Halbaeck 1966:61-66; Kirkbride 1966:64). Tell Ramad I-II produced domestic barely, emmer, einkorn, lentils and various wild fruits as pistachio (de Contenson 1966c:154; 1971:278; Leroi-Gourhan 1974:44(). At Mureybet seeds of wild barely, wild einkorn wheat, legumes as lentil, bitter vetch were gathered (van Loon 1966a:216; 1968:280; van Zeit 1970:167-179).

In Jordan, non-local items from Anatolia in addition to a small quantity of imported turcoise from Sinai and cowri-shells from the Mediterranean coast have been found at Beidha and 'Ain Gazal.

Most of the obsidian artifacts at Jericho, as in Ramad I-II, came from Ciftlik source, while one of the pieces found in Beidha V, like all those from Bouqras, originated at Nemrut Dag of Lake Van.

The ground-stone artifacts are often made of basalt. Limestone querns, bowls mortars, cup-hole mixers or gaming tables in addition to grinders and pestles made of local granite were found at Beidha (Kirkbride 1966: 32-35).

The PPNB phase is also characterized by the production of "White Ware", a composite of lime or gypsium and salty grey ashes. White Ware vessels are large and have very thick walls, and smoothed or burnished surfaces. White Ware is known from 'Ain Ghazal near Amman in Jordan, where three platters were excavated (unpublished), Tell Ramad II-III (van Liere and de Con-

tenson 1963:180), Ras Shamra VB and A (de Contenson 1977:46), Tell Sukas 84-82 (Riis and Thrane 1974:10,83), Byblos Néolithique ancien (Cauvin 1968:41), Tell Neba'a Faour (Copeland 1969:90), Saayideh (Hours 1969:39), and from Labweh II-III (Kirkbride 1969c:49). In Palestine it is attested at Munhatta 3 (Perrot 1966a:53).

Two groups of statues, found in 1935 at Jericho by Garstang, were considered by him to be related to the Pottery Neolithic Levels (Garstang 1935:166), whereas Kenyon dated them to the PPNB phase (Kenyon 1960:91). Each group consisted of a man, a woman and a child. Hair and beard are indicated by strokes of paint and the eyes are represented by two-shells. De Vaux argues that they had a religious significance and that they represented a god, a goddess and a child god (de Vaux 1960:10).

It is generally felt that the PPNB people worshipped their ancestors. A group consisting of ten skulls separated from their skeletons was discovered in the PPNB levels at Jericho. The eyes had been replaced by sea-shells and the facial muscles had been modelled in plaster. One of the skull-caps was painted with black bands and another skull had a moustache painted on it (Kenyon 1957a:59-64). The post-cranial skeletons to which the skulls once belonged were buried under the floors of the houses. This kind of worship may be considered as a continuation of the preceeding period, since groups of skulls separated from skeletons were found in the PPNA levels too (Kenyon 1956:75).

It seems that in the PPNB period the climate had become better than in the PPNA period (Crown 1972), causing a growth in the number of sites in the eastern Mediterranean area, from Hacilar in Anatolia to Kilwa in northern Saudia Arabia.

Abu Gosh, on the West Bank of Jordan, near Jerusalem had rectangular houses with stone walls and lime-

stone floors similar to those from Jericho PPNB (Lechevallier, M. 1978). Despite the absence of picks and hoes there are similarities to the flint industry from Jericho, for example in arrows and sickle-blades. Beside the flints, elongated querns, pestles and various obsidian tools were also uncovered at Abu Gosh. A great quantity of cattle and goat was found in the faunal assemblage, in addition to gazelle, fox, pig or wild boar, tortoise, and wild cat (Perrot 1975:4). Chronologically, Abu Gosh can be linked with Jericho PPNB (Perrot 1952a:1-4; 1967b:267; 1968a:265; 1969a:423; 1975:4; Lechevallier 1970a:223; 1971:227; 1971a:407; 1972:400; Prausnitz 1970:145).

From the abundance of arrow points, and the remains of wild animals, it may deduce that the life of the PPNB group of Abu Gosh was based on hunting and the cultivation of cereals.

Rectangular houses with paved floors were excavated at Wadi Fallah (Nahal Oren). The upper levels yielded axes with polished edges, adzes, arrows, sickle-blades, knives, querns with double saddle, and a small quantity of obsidian (Stekelis and Yisraely 1963:2ff.).

At Munhatta, ca. 15 km. south of the Sea of Tiberias, rectangular structures with plaster floors were uncovered in Levels 6-3 (Perrot 1963a; 1963d; 1964a; 1965a; 1965b; 1966b; 1967; 1967a; 1967c; 1968a; Perrot and Tsory 1964; 1977). Furthermore, both the flint and the groundstone industries of these levels confirmed a relationship with Jericho PPNB and Abu Gosh.

Round houses foundations and stone implements related to the first phase at Jericho were uncovered in the lowest levels, Strata 4-3, at Sheikh 'Ali. In the level just above this a rectangular house was excavated (Preusnitz 1959:179; 1960a:120; 1960b:389-390; 1970:100ff.; 1975:61-63). Beneath the floors skeletons without their skulls had been buried, again a connection with Jericho PPNB (Prausnitz 1975:63).

Other archaeological sites found in Palestine dated or considered to be related to the PPNB phase are: 'Ain Umm el-Fus (Tzori 1958:46), Beisamoun (Perrot 1966:271-272; Le Brun 1969:116-117; Lechevallier and Perrot 1973:108; Ferembach and Lechevallier 1973:233), 'Ain ha-Shomer (Lechevallier and Dollfus 1973a:17), el-Khiam (Echegaray 1966), Hamadiya (Tzori 1958:45; Kaplan 1965:543-544), Kfar Gilàdi (Kaplan 1966:273; Lechevallier and Dollfus 1973a:19), Mikhmoret (Noy 1977:290), Nahal Boqer (Noy 1976a:18), Qat (Lechevallier and Dollfus 1973a:12), and Tannour (Lechevallier and Dollfus 1973a:8).

PPNB sites have also been found in Syria. At Tell Ramad Nivaux I and II are related to this culture. Tell Ramad is located ca. 15 km. south west of Damascus and produced flint implements, querns, lime-washed surfaces, brick walls and plastered skulls (van Lier and de Contenson 1966c:154; 2967:228-229; 2969a:27; 1969b:31-34; 1970; 1971; 1974; 1977:44-45; Prausnitz 1970b:156-158; Hooijer 1966:194-195; van Zeit and S. Bottema 1966; de Contenson and van Liere 1966a; Ferembach 1969; France Leonard and de Contenson 1973; and Leroi-Gourhan 1974: 448). Similar material has been found at Cheikh Hassan (Cauvin 1977), el-Kowm (Dornemann 1969:68), Bouqras (van Liere and de Contenson 1963:182; Hooijer 1966; de Contenson and van Liere 1966c:187), Ghoraife (Leroi-Gourhan 1974:448; de Contenson 1975:183-184; 1975a:17-22; and 1977:44), Ras Shamra (Shaeffer 1939; 1962:153; and Perrot 1977:45), Tell Abu Hureyra (Moore 1975:58-68; Hillmann 1975:70-74; and Legge 1975:74-75), Tell Aswad in Level II (de Contenson 1971:79; Cauvin M.-Claire 1974a; 1974b; and de Contenson 1977:44), Mureybit (van Loon 1966a:215-216; 1966b:216; 1968:266-169; Skinner 1968; van Zeit 1970; Cauvin M.-Claire 1974; 1974a; Stroeder-Yedid 1974; and Leroi-Gourhan 1974).

It should also be mentioned here that sites related

to the PPNB culture have been found in Lebanon too (Copeland 1969; Copeland and Wescombe 1965; and Kirkbride 1969b).

On the East Bank of Jordan many sites related to the PPNB phase have been excavated or found on survey. Let us first discuss those PPNB sites found on the East Bank where small - or large - scale excavations have been carried out.

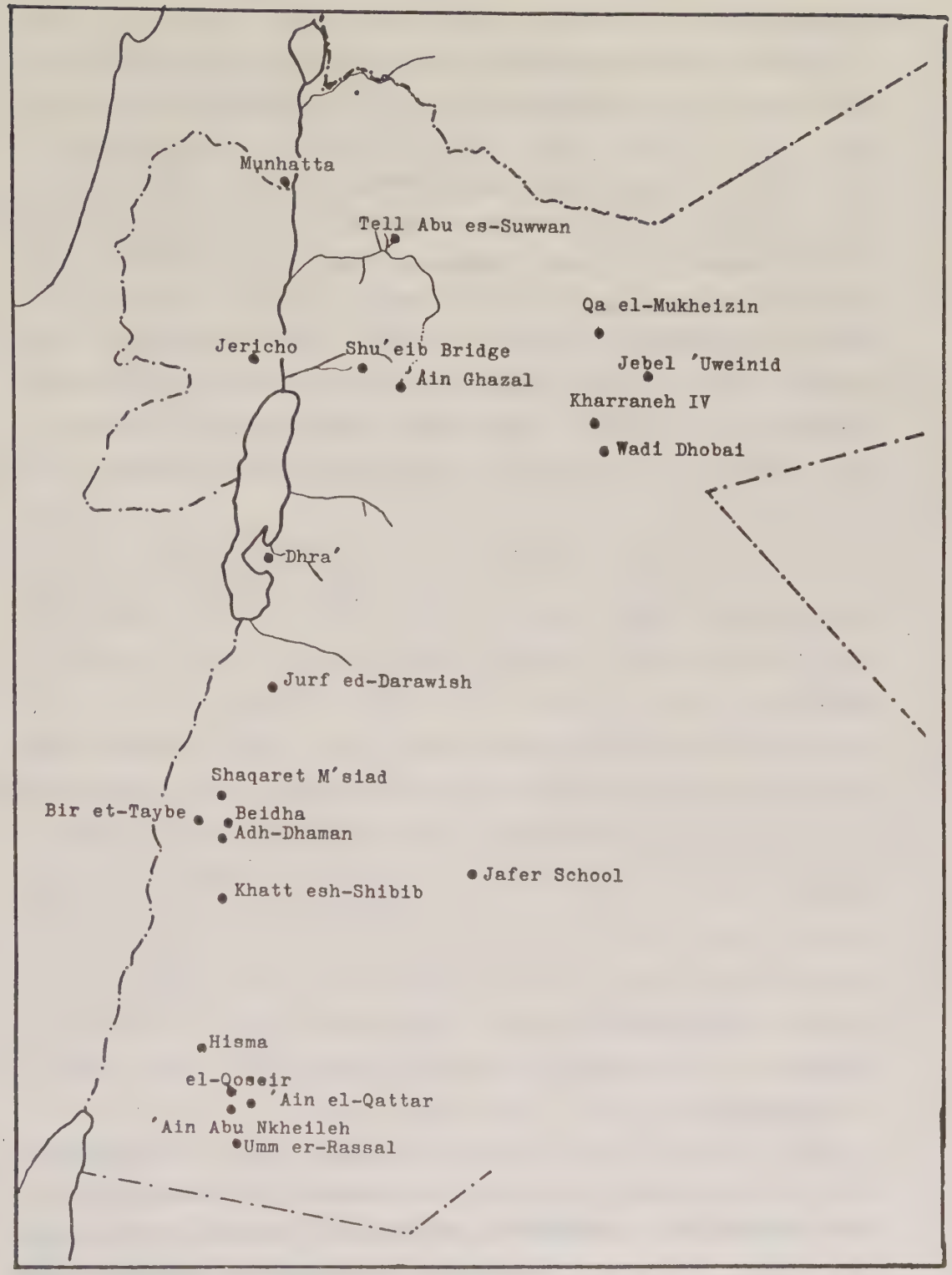


Fig. 4. Pre-Pottery Neolithic B Sites in Jordan

Beidha

Beidha, or Seyl Aqlat as it is known by some archaeologists, is located in the southern part of Jordan, on a terrace about 1000 m. above sea level and ca. 400 m. below the high plateau of the Arabian desert, on the western side of Jebel el-Sharah. The site is surrounded by high ranges of sandstone cliffs. To the west of Beidha runs the Wadi 'Arabah. The Wadi Ghrab and the Wadi Sabra, as well as a series of springs seem to have been the main sources of water. Today, as in former times, Bir Dibadiba, ca. 4 km. north-east of Beidha, is the nearest water supply (Raikes 1966:68; Kirkbride 1967b:9).

The site was excavated by D. Kirkbride, who carried out seven seasons of excavations between 1958 and 1967 (Kirkbride 1960b; 1960c; 1960d; 1961; 1962a; 1962b; 1963; 1964; 1966; 1966a; 1966b; 1967a; 1967b; 1968a; 1968b).

In the course of excavation over forty burials were uncovered, ten of which were of adults, and the rest of infants and children (Kirkbride 1967a:9; 1967b:16). Some of the infant burials were found intact below the floors of the houses, while the adults and adolescents usually lacked the cranium (Kirkbride 1967a:9). Ruined houses were also used frequently as burial grounds. The custom of separate cranial interment beneath house floors recalls what we have already noted from Jericho in Palestine.

Two different architectural types were revealed in the excavations. Firstly, corridor units which may have served as a communal store and market (Kirkbride 1963:448; 1966:14); secondly, rectangular houses apparently used for private residence (Kirkbride 1962:8-10). The first type was uncovered on the west side of the site. Here the structures consisted of tiny rooms measuring 1 x 1.5 m. and opening on one side to the cen-

tral corridor. They were built of small limestone boulders and slabs of sandstone, and had fairly straight walls with sharp corners. Three descending stone steps led into each room.

The main area or courtyard, measuring 7 x 9 m., had plastered floors and walls. This plaster consisted of a lower layer of small pebbles, lime and ashes with a thick, hard, upper crust of very fine, smooth plaster. The floor had been replastered four times. An adjoining courtyard had a different kind of plaster floor composed of sand and very hard lime. Beyond the second court was an open area with a beaten earth floor (Kirkbride 1962:9).

The remains of the final occupation (Level I) were entirely destroyed by the Nabateans (Kirkbride 1966a: 201; 1967b:10), who cultivated the area. Only scattered remains of wall foundations could be traced, suggesting that houses were small, and rectangular, with plastered floors. One house measured ca. 4 x 3 m. and had slightly curving walls. These walls were built of small, flattish stone slabs (Kirkbride 1966:9; 1966a; 201). The Level I walls were built directly on top of the corridor complex of Level II.

Levels II-III had the same general lay-out. A white floor of a very large house, ca. 9 x 7 m., was excavated (Kirkbride 1967b:10). On this floor, and on another below it were found areas painted in red below the white plaster. Similarly painted plastered floors and walls have also been found in the PPNB levels at Jericho (Garstang 1937:69). Attached to this large house were enclosures and pens, presumably for protectian the herds by night.

In addition to this house, "workshop" building were found (fig.35 ).They are completely different in plan from the large house mentioned above, consist-

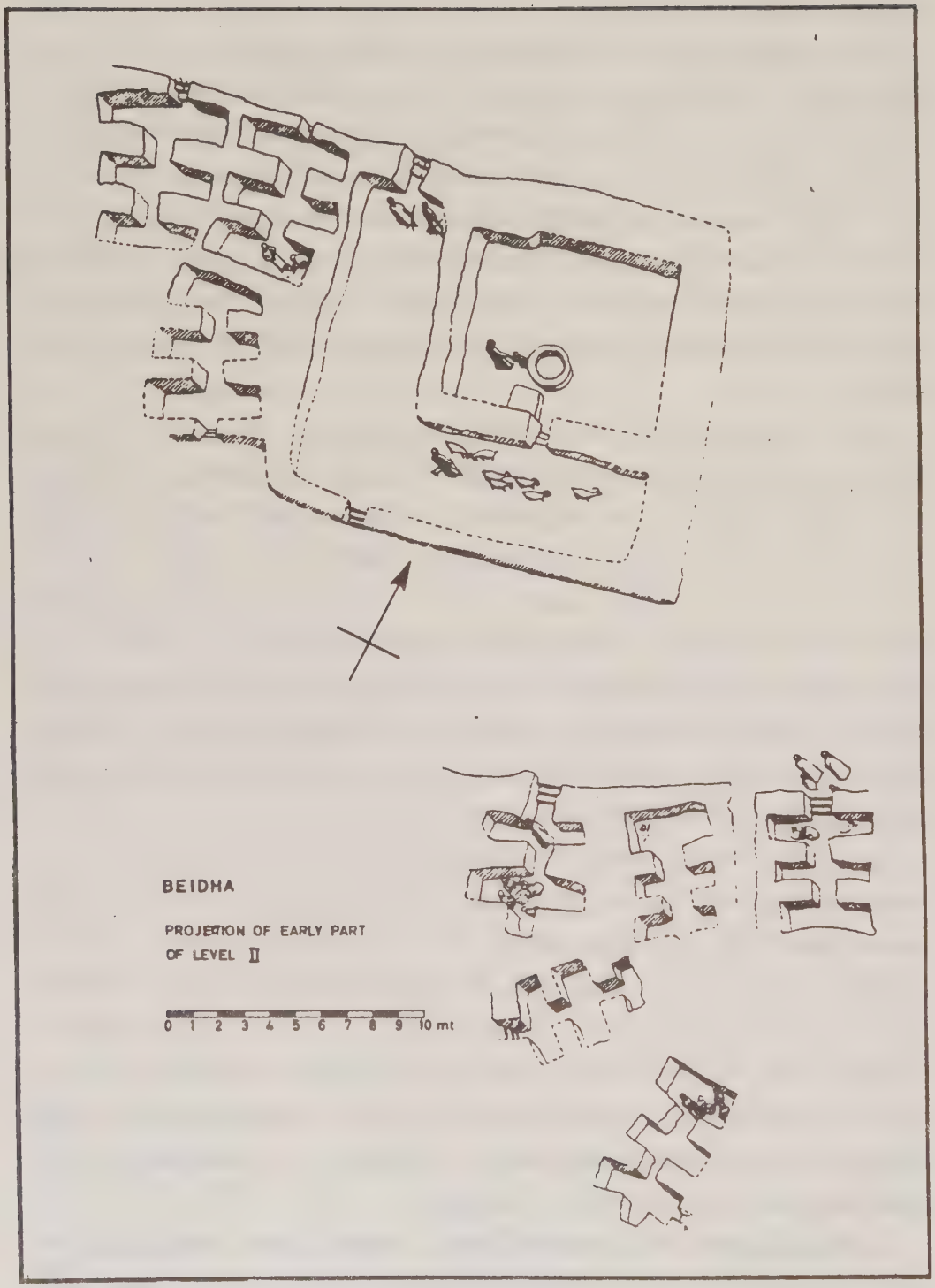


Fig.5 . reconstruction of Level II (after D. Kirkbride 1966)

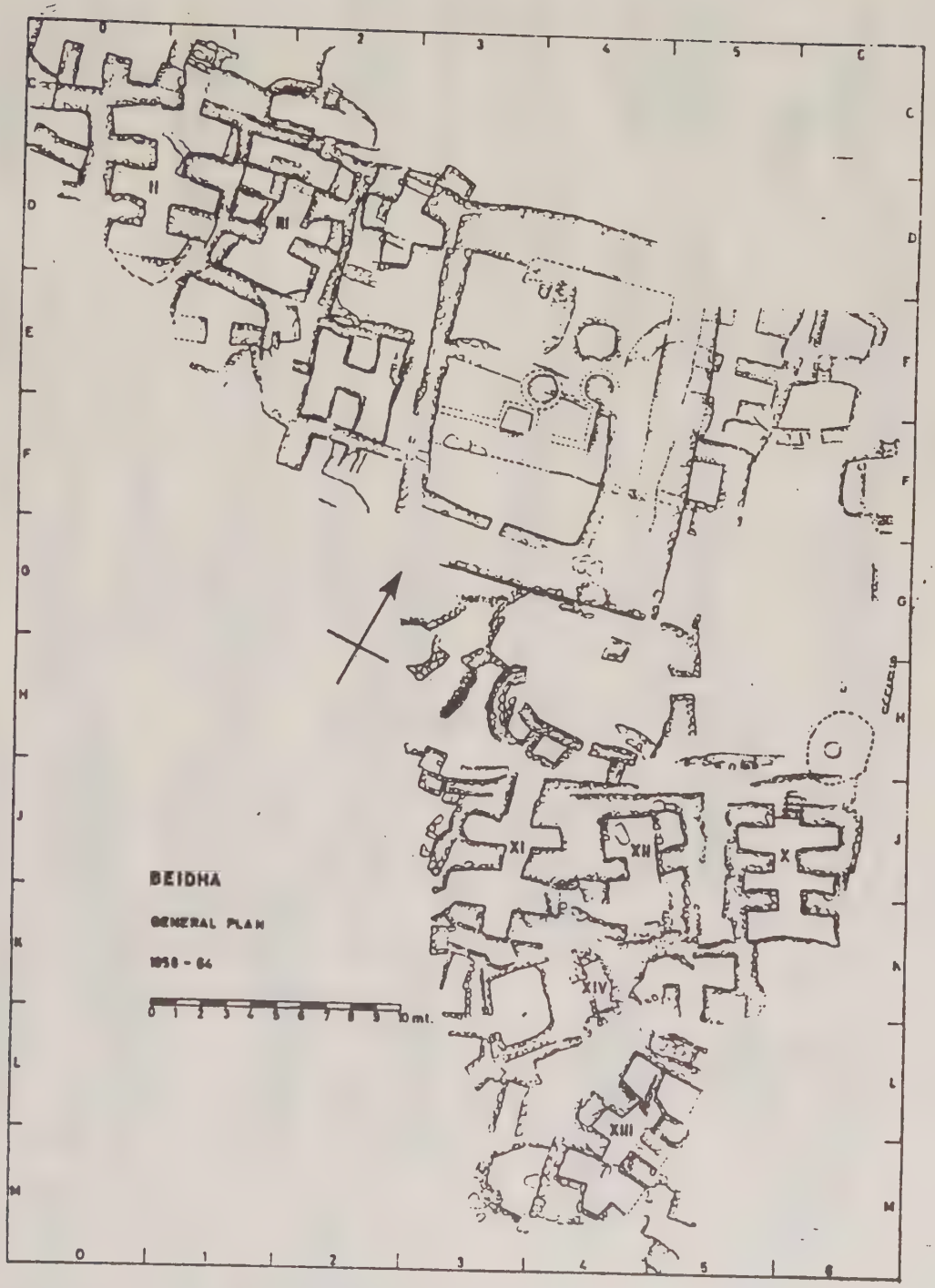


Fig. 6 . Buildings of all phases (after D. Kirkbride 1966)

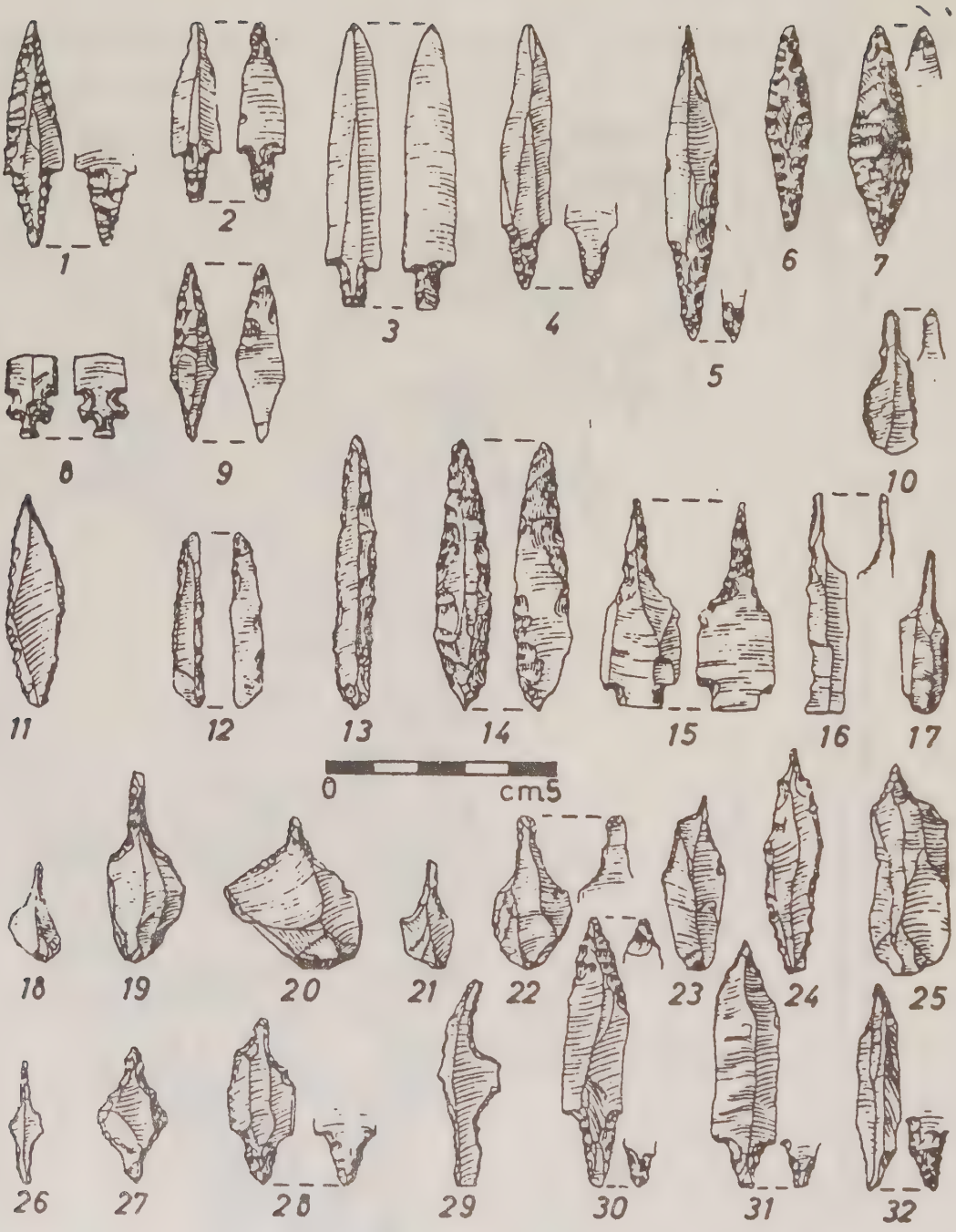


Fig. 7 . Flint tools from Levels II and III ( after: D. Kirkbride 1966)

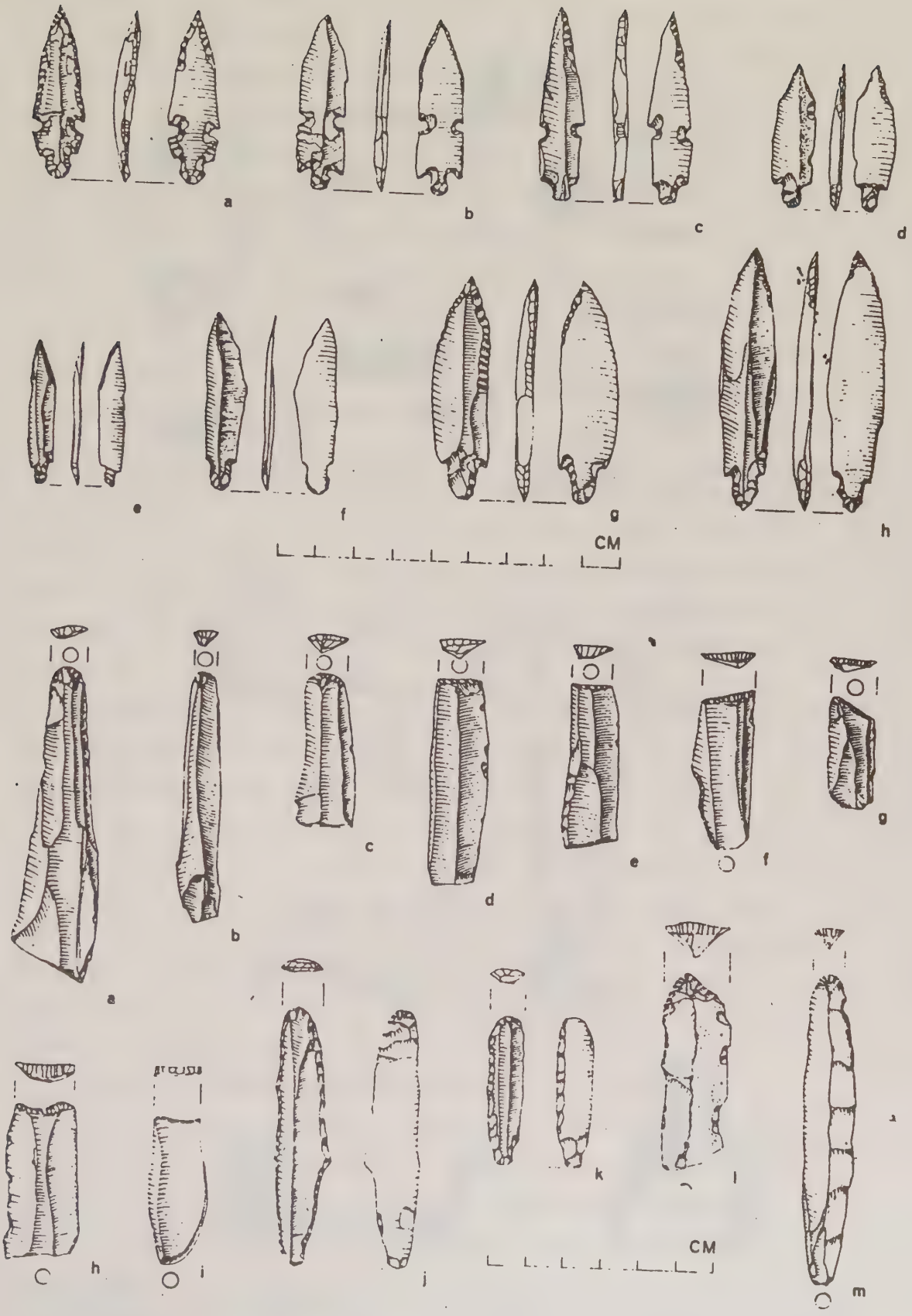


Fig.8 . Arrow-heads and end-scrapers (after Mortensen 1970)

Fig. 9. Nos. 1-6 Pestles. 5, 7-9,11,12 Stone bowls ( after D. Kirkbride 1966).

Fig.10. No. 1 Clay mother-goddess, Level II; 2. Baked clay ibex figurine from Level VI; 3. Bell-shaped stone amulet, Level II; and 4. section of baked clay bowl ( after D. Kirkbride 1966).

ing of a central corridor about 6 m. long, with rooms ca. 1 x 1.5 m. which were divided from each other by a series of buttresses which once supported an upper story. All these buildings show three descending steps and, in some cases plaster floors. No plaster was found on the walls; the rooms had no windows. Kirkbride suggested that this workshop building complex was used as a communal place for meeting and eating (Kirkbride 1966:14,15).

In Level IV a different type of building was uncovered. Each house from this period had its own courtyard (Kirkbride 1962:10). The houses were semi-subterranean and consisted of one room only. Completely circular houses existed alongside rectangular ones, the latter ones with gently curving walls and rounded corners. Most of the houses had plastered floors and walls, as well as a hearth with raised sill. The walls were chiefly of hard, flat slabs with a muddy mortar in between (Kirkbride 1966:18; 1966a:204, 1967a:8; 1967b:13).

Though Level V houses were badly damaged by later building activities, enough remained to show that these houses were round, and one had an unusually thick wall exceeding 50 m. They were free standing and single-roomed. Aside from the fact that the floors and walls of these houses were plastered, they were very similar to the PPNA houses at Jericho (Kirkbride 1966:19; 1966a:205). A post-house which had a paved floor with small, flat irregular stone slabs was also found in this level at Beidha (Kirkbride 1967a:8).

A small circular building with plastered floors and walls, two including rooms which had central postholes, was found in Level VI (Kirkbride 1966:21; 1966 a:205; 1966b:268). In Levels VII and VIII plaster floors, one containing three postholes, were found

in Squares E4-6. Kirkbride noted that these floors were not associated with any walls and may have been used as work areas. In connection with these was found a flint assemblage characteristic of the Neolithic period (Kirkbride 1967a:6).

The earliest culture represented at Beidha is the Natufian. The Natufian levels were separated from the PPNB levels by ca. 2-3 m. of sterile sand.

Kirkbride suggests that Beidha was occupied for about 500 years from ca. 7000-6500 B.C. This estimate is based with on C 14 dates and the architectural sequence (Kirkbride 1967a:12). The C 14 dates from Beidha given below are all based on the Libby half-life and were run by the Copenhagen Carbon 14 Laboratory, Danish National Museum, 8th Department:

| | | | | |
|---|---|---|---|---|
| 6760 B. C. | ± | 160 | Level VI | K-1082 |
| 6690 B. C. | ± | 160 | Level V | K-1082 |
| 6780 B. C. | ± | 160 | Level IV | K-1084 |
| 6600 B. C. | ± | 160 | Level II | K-1085 |
| 6990 B. C. | ± | 160 | Level VI | K-1086 |

Beidha's economy was based on the cultivation of cereals, including two-row hulled barely and emmer as well as on the collection of wild plants. Three types of weed were also recognized in the botanical collection from the site (Helbaeck 1966:61-66; Kirkbride 1966: 64). The herding of goat, sheep or pig is attested (Kirkbride 1966a:207). Bezoar, aurochs, gazelle, wild boar, horse or half-ass, hyrax, hare and jackal were all hunted in the vicinity of the settlement (Perkins 1966: 66-67).

The area around Beidha is rich in minerals such as hematite, malachite, mica, steatite, and salt (Kirkbride 1966:51-54). Imported goods such as obsidian from Anatolia, and pumice and shell from the Mediterranean,

show that the PPNB inhabitants of Beidha had contacts with distance regions (Kirkbride 1966:51-54; 1966a: 207; 1967b:17).

Ground stone tools and querns as well as bone tools, were uncovered at Beidha (Kirkbride 1966:25-30; 1967a:10; 1967b:15). Three small baskets, two of which were coated with a thin layer of lime plaster and one of which was coated with bitumen, were also found. In addition, an oval wooden box containing 114 flint arrow-heads and points was uncovered (Kirkbride 1967a:10).

Animal figurines modelled in clay, one representing a female goat and the other a ram's head, were found in Level VI (Kirkbride 1967a:10).

The chipped stone industry of Beidha, comprising about 44.248 pieces of flint and three pieces of obsidian, has been studied by Peder Mortensen (Mortensen 1970). The implements were made of local flint, and Mortensen recognized several types of flakes as well as borers, burins, scrapers, knives, sickle-blades, notched blades, picks and spherical hammer-stones, beaked blades, firestones, retouchers, chisels, and celts. Mortensen compared this flint industry, with that of PPNB Jericho and dated it to the period between 7000-6500 B. C. (Mortensen 1970:11-12).

Tell Abu es-Suwwan

Tell Abu es-Suwwan is situated on a rocky hill, east of Hadrian's arch in Jerash. It is situated at the confluence of the Wadi Jerash and another small wadi which flows in from the west. This site was first noted by G. L. Harding (Harding 1948); later D. Kirkbride made small soundings during the reconstruction of the South Theater at Jerash in summer of 1955. Acheulian, Levalloisian and Neolithic implements from the site were published in her excavation report (Kirkbride 1958).

A small trench (Trench A), measuring 2 x 2 m. was opened on the talus slope running south from the main limestone ridge. Six levels were recovered here and Neolithic chipped stone was recovered in all levels down to Level 5, where they scarce. Level 6 was sterile. The chipped stone collection included tanged arrow-heads, arrow-heads with tangs sloping gently into blade, single-shouldered points, bifacially worked "chisels", burins, double concave scrapers, one multiple-nosed scraper, end-scrapers, round scrapers, points on scraper, saw blades, denticulated blades, notched blades, core trimming flakes, crested guide flakes, awls or drills, cores, bifacially pressure-flaked fragments, unifacially pressure-flaked fragment, blades, waste blades and flakes (fig. 11).

Due to the fact that no structures or post-holes were found, D. Kirkbride has argued that the site was settled by "bedouins" of the Neolithic period (Kirkbride 1958:15). But from our point of view, the data at hand is too insufficient to substantiate this opinion. We must await new excavations in order to determine whether or not the settlement was permanent or temporary.

In addition to the flint industry, a ground stone industry including basalt querns, pestles, mortars, digging-stick, weights, and hammerstones were found

at Tell Abu es-Suwwan. Only one obsidian blade was found (Kirkbride 1958:15).

Kirkbride compared the chipped stone assemblage of Tell Abu es-Suwwan with Jericho PPNB, Wadi Shu'eib and Beidha PPNB (Kirkbride 1958:15); in Mortensen's opinion it is contemporary with or younger than Beidha I-II (Mortensen 1970:49).

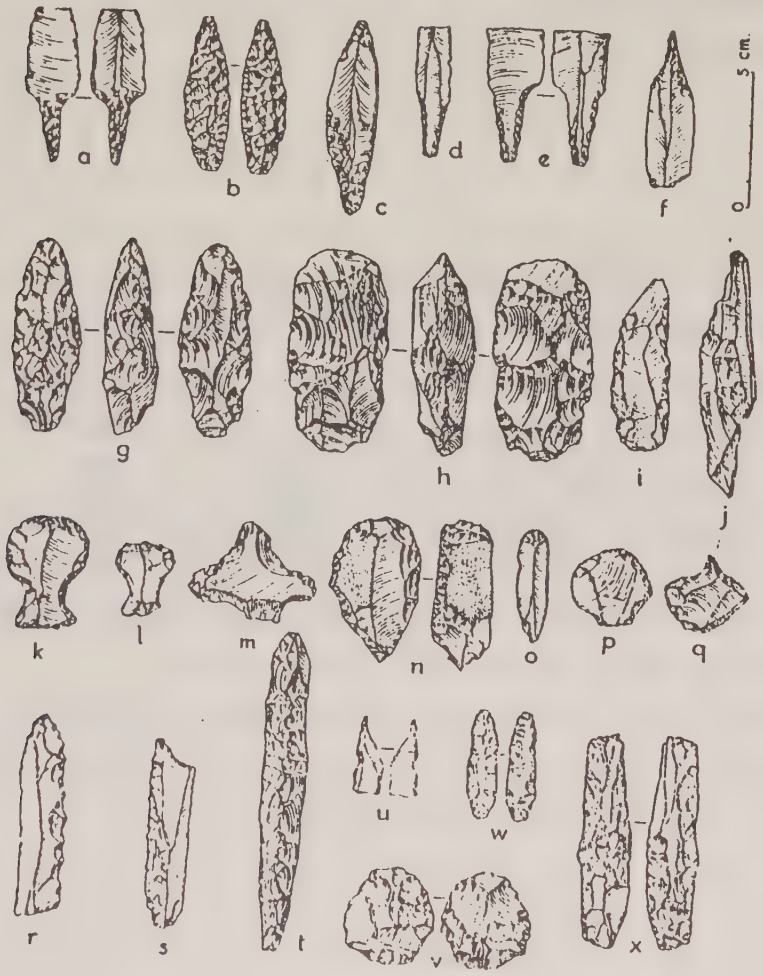


Fig. 11. Flint implements (after D. Kirkbride 1958).

Wadi Dhobai

The Wadi Dhobai is located ca. 60 km. east of Amman. Six sites were found here by A. Kirkbride and G. L. Harding, of which two were excavated by J. Waechter and V. M. Seton-Williams. The excavations ran over a period of about three months during the years 1937-1938 (Waechter and Seton-Williams 1938).

The Wadi is bounded on the north and south by flint and limestone ridges. An ancient dam built across the wadi enabled the storage of water for six or seven months. A small spring, dry by the end of June, also supplied the area with water (Waechter and Seton-Williams 1938:173-174; Glueck 1943:49; 1951:49,53).

Of the six prehistoric sites in the area, Sites A-D, and E1 could be related to the so-called Dhobanian Culture, while Sites K.1 and F.2 were Aurignacian in character (Waechter and Seton-Williams 1938:174). Only two of these sites, B and K, were sounded, of which only B falls into our time-range.

At Site B, a round stone structure had been visible on the surface, and a 3 x 1 m. probe trench was put across the southern end of the structure. This sounding trench was later extended three times.

Three layers were excavated, the uppermost Layer 1 consisted of sand soil and was only 10 cms. thick. Layer 2 was of light gray powder and was ca. 30 cms. thick. Layer 3 consisting of white earth overlying bedrock, was of variable thickness. When bedrock was reached 3 post-holes were found cut in the rock (Waechter and Seton-Williams 1938:175).

Seven fragments of animal bone were found at Site B and were identified as follows: small fox, badger, small hare, small rodent, gazelle, rock partridge, and tortoise.

Dorothea Bate noted that the animal remains from

Wadi Dhobai were of particular interest, because they included the first fossil mammalian remains found in the East Bank (Bate 1938:292-296).

The flint implements (fig. 13 ) found in the three levels of site B included points, end-scrapers, "bec-de-flûte", angle burins, plane burins, core-tablets, cores, cores scrapers, blades, blade flakes, and "lames de dégagement" (Waechter and Seton-Williams 1938: 176-180). This collection has been compared with those of Beidha PPNB, Jericho PPNB (Prausnitz 1970b:82), and Jericho Proto-Neolithic (Yeivin 1975:329).

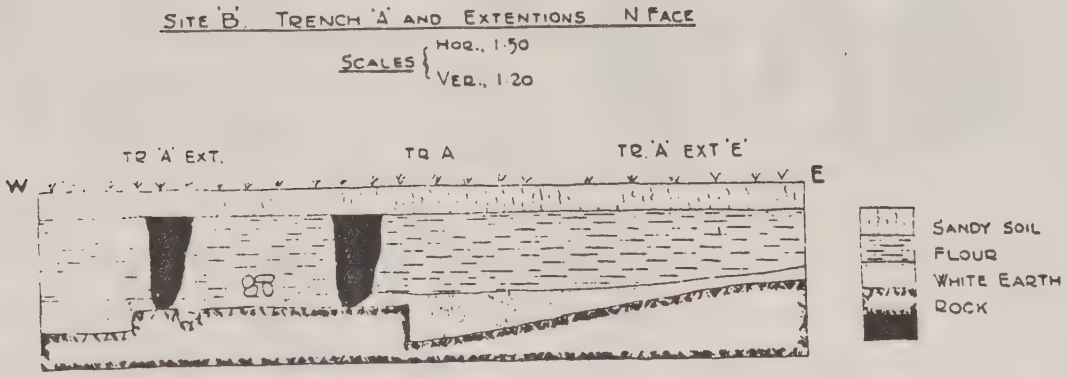


Fig. 12. Site B (after Waechter and Seton-Williams 1938).

Fig.13 . Flint implements (after Waechter and Seton-Williams 1938).

'Ain Abu Nkheileh

'Ain Abu Nkheileh is located in the Hisma area of the Wadi Rumm, about 5 km. south of the famous Nabatean remains and modern Police Post. The site is one of a series of springs at the foot of the Wadi Rumm mountain (Kirkbride 1960f:231; 1978:1).

The site measures ca. 50 x 45 m and has an irregular oval shape, with a deposit of only ca. 75 cm. It was discovered by A. Kirkbride and G. L. Harding in 1947 during their survey of the area. The translation of the sites name is "Father of the Little Date Palm". The name was given to the site by the surveyors (A. Kirkbride and Harding 1947:7-27).

A very small sounding was undertaken here by D. Kirkbride during her survey in the Wadi Rumm. The goals of this sounding were to get additional data to confirm or reject Stekelis's correlation of the site with Jericho VIII. Stekelis had based his opinion on a study of the knife blades, end-side scrapers and arrow-heads from the site (Stekelis 1947:26).

One test trench was dug towards the western edge of the site. It revealed parts of both round and rectangular buildings. The trench was enlarged eventually on the north edge to enable the excavation of large portions of both buildings. One of the structures, House IV, is round in plan and reminds us of Beidha IV, although it has no post sockets in the walls (Kirkbride 1978:7).

Kirkbride believes that 'Ain Abu Nkheileh was not occupied for a very long time, and she further disagrees with Stekelis' idea that the site was contemporary with Jericho VIII. She prefers to date the site to the last quarter of the 7th millenium B. C., or PPNB (Kirkbride 1978:9).

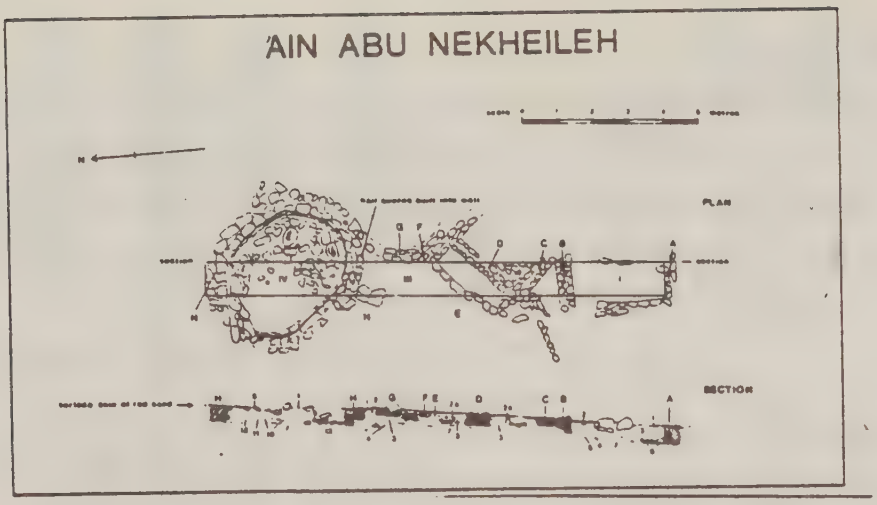


Fig. 14.. Abu Nekheileh plan and section ( after D. Kirkbride 1978).

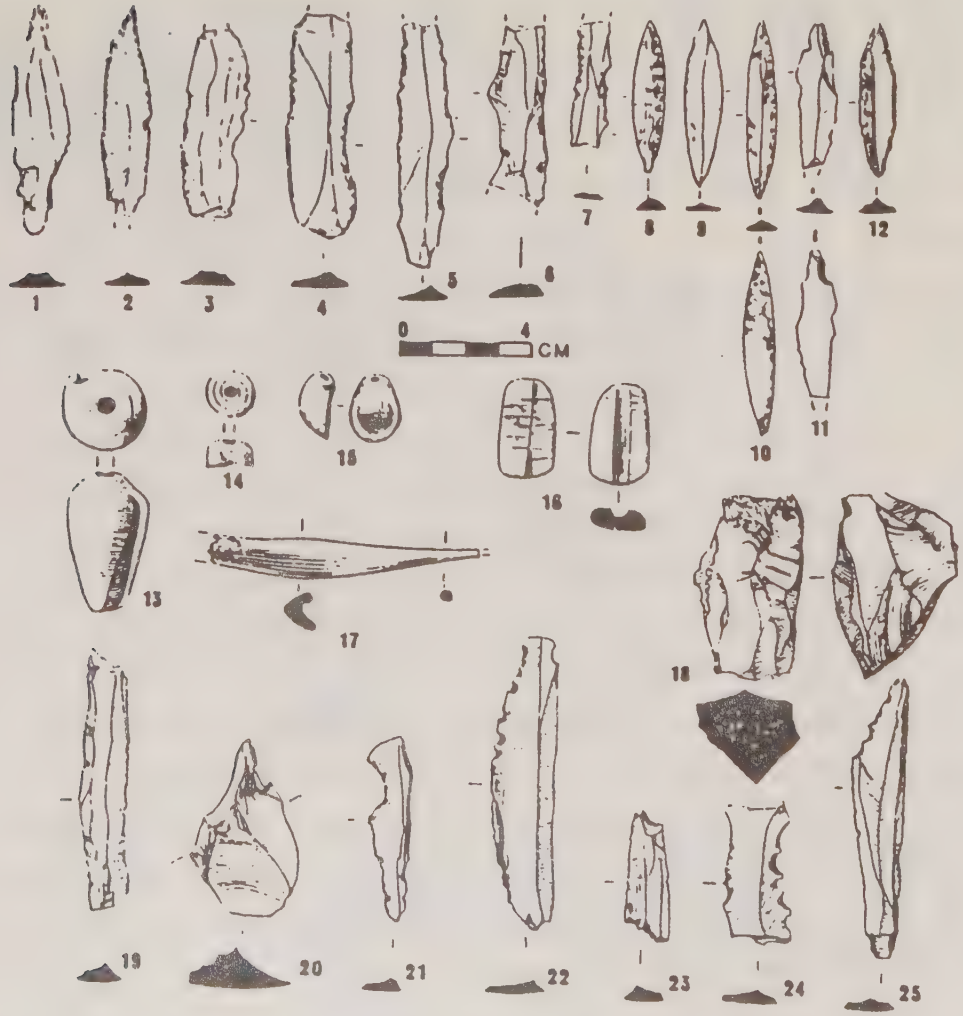


Fig. 15.. Abu Nekheileh flint implements ( after D. Kirkbride 1978).

Both ground and chipped stone, as well as many shells and beads, were found during her excavations. Kirkbride noted that the most characteristic artifact of Abu Nkheileh was the arrow-head, and supposed that the source of flint used to make these was a place on the limestone desert plateau about 25 miles to the north of the site.

The chipped stone industry of Abu Nkheileh included leaf-shaped and tanged arrow-heads, unretouched blades, straight blades with flat reverse faces, notched blades, double-ended cores, borers, points, saw-edge blades of Pottery Neolithic type, and perhaps an unfinished spearhead.

The leaf-shaped arrow-heads may be paralleled with those from Beidha VI-I, PPNB Munhatta, and PPNB at el-Khiam (Kirkbride 1978:8). This type of arrow-head came into use in the very last phase of the PPNB and continued into the Pottery Neolithic. Kirkbride therefore dates the site to the transition from the Pre-Pottery Neolithic B to the Pottery Neolithic period (Kirkbride 1978:9).

In addition to these sites a sizeable numer of sites found during surveys can be dated to the PPNB phase. Khatt esh-Shibib, Shu'eib Bridge, Kharraneh IV, 'Ain el-Qattar, el-Qoseir, Umm er-Rassal, Qa el-Mukheizin, and Jebel 'Uweinid were found by Zeuner during his survey of the East Bank. Unfortunately, they remain published only in part (Zeuner 1957:21-54). Shaqaret M'siad, Adh-Dhaman, and Bir et-Taiyba were discovered by D. Kirkbride during her survey of the area around Beidha (Kirkbride 1966:55).

Sites related to the PPNB phase were also found in the Hisma area, which is situated to the north of the road to el-Mudawwara, 25 km. from it's junction with the Ma'an-Aqaba highway, and 7-8 km. beyond the

the turnoff south of the Wadi Rumm.

The Hisma Area had previously been visited and surveyed by many archaeologists (e.g. A. Kirkbride and G.L. Harding 1947; Zeuner 1957; Kirkbride D. 1971; and Copeland and Hours 1971). The materials collected by A. Kirkbride and Harding were studied by Stekelis, who related only two of the visited sites to the Neolithic culture, Jurf ed-Darawish (PPNB) and Al-Nkhila "'Ain Abu Nkheileh" (PNB, Jericho VIII) (Stekelis 1947: 25-26). Some years later Price and Garrard registered 20 prehistoric sites in the Hisma Area, of which some were attributed either to the Pre-Pottery Neolithic or to the Pottery Neolithic phases; neither flints nor pottery have been published to date (Price and Garrard 1975:91,93).

Jurf ed-Darawish was surveyed by R. L. Raikes, who collected flint artifacts at the site, dating them to the Palaeolithic and Pre-Pottery Neolithic cultures (Raikes, R. L. 1963:218; 1967:233-234).

T. D. Raikes undertook a survey in December, 1977, in the Wadi 'Arabah area. He discovered many new Neolithic sites. Khiamian points as well as pottery Neolithic flint tools were collected in both the Dhra' and Fidan Wadis (Raikes 1980:40-60).

In the fall of 1979 Burton MacDonald surveyed the Wadi Hasa Area. Some of the sites found by him were dated to the Pre-Pottery culture between ca. 8000-6000 B. C. (MacDonald 1980:7).

By the end of the PPNB phase, ca. 6000 B. C., some sites such as Beidha, Wadi Fallah (Nahal Oren), and the Terrace of el-Khiam were completely abondoned. At others the stratigraphic sequence shows an interruption in occupation, as at Jericho, Munhatta, Abu Gosh, and Tell Sheikh 'Ali. This abandoning at some sites could have been the result of desiccation, which forced population to leave the desert and move towards the rift valley to the west where sites like Labwe on the Orontes (Kirk-

bride 1969c:46) and Tell Ramad on the Wadi Kattana in the Damascus basin (van Liere and de Contenson 1963) survived. At Labwe three C14 examples were taken and the average from the three is 5950 based on the Libby's half-life (Kirkbride 1969c:50). By this time a new culture appears the Late Neolithic Culture, which is characterized by the invention of pottery. This culture may first have been established in north Syria, where the "White Ware" continued in use and the "Dark Faced Burnished Ware" was originally produced.

Late Neolithic Phases

Late Neolithic period is defined as the period in which pottery was first manufactured. As mentioned above, PPNB culture, perhaps influenced by climatic changes, declined around 6000 B. C. and The new Pottery Neolithic culture arose.

At Byblos, in addition to certain PPNB features which were retained, the Dark Faced Burnished Ware (DFBW) of northern Syria was found (Mellaart 1975:68). This kind of ware is attested at many sites in Palestine (cf. above p. 15 ) and on the East Bank of Jordan has not yet been found.

By the end of the Early Neolithic and the beginning of the Late Neolithic the East Bank of Jordan as well the other parts of the Levant were influenced by climatic changes. Thus, it could be that some of the people of Jordan (East Bank) migrated to the northern of the western side of the Jordan River where DFBW was found, while others turned to semi-nomadic pastoralism and stockbreeding, setting up seasonal camps such as 'Ain Abu Nkheileh in south Jordan. Around 5000 B. C. the climate appears to have gotten cooler (Copeland 1969:93), and Jordan saw the occupation of new sites, e.g. Dhra 'and Marj el-Hamam in the southern part of the country.

The people of the Pottery Neolithic culture were supported by growing crops and herding of domestic animals. Mellaart has stated that towns were present, especially in northern Syria, where most of the Late Neolithic sites were villages (Mellaart 1975:227).

It seems that trade did not play as important a role in this period as in the preceeding one. Thus, no obsidian artifacts have been found in the Levant beyond Byblos. Imported fine tabular flint of chocolate or off-white color, used in the manufacture of weapons,

was also found at Byblos. Its precise origin is not yet known, although Mellaart considers it be of Syrian provenance (Mellaart 1975:229).

The Late Neolithic may be divided into two subphases, Late Neolithic 1 and 2. Late Neolithic 1 is represented by the Yarmukian and Jericho IX/PNA assemblages which, significantly, were found together in one stratum at Munhatta (Stratum 2B). Late Neolithic 2 includess Ghrubba, Jericho VIII/PNB and Munhatta 2A1.

Late Neolithic 1

At Jericho the successors of the PPNB settlement were users of pottery. The earliest red burnished ware has been called Pottery Neolithic A by Kenyon (Kenyon 1957a:81). Such pottery was found in pits cut into the uppermost PPNB levels. In Palestine, Jericho IX (Kenyon 1957a:81), Munhatta Stratum 2B (Perrot and Zori 1977:872), Tuleilat Batashi IV (Kaplan 1958a:83 "English summary"), and Giv'at ha-Parsa (Noy 1977:290) show that the successors of the PPNB population were pit dwellers.

Kenyon felt it was impossible to tell wheter the PPNB settlement at Jericho had been deserted for some time before the PNA period began, or whether it was destroyed by newcommers (Kenyon 1957a:81). De Vaux argued that newcommers had brought the technology of pottery with them (de Vaux 1966:13), and Mellaart suggested that this population came from the north or northeast (Mellaart 1975:238). In any event, Kenyon acknowledged that there was a complete break between the PPNB and the Pottery Neolithic stage at Jericho, something not represented on all PPNB sites found in the Syria-Palestine area.

In Palestine the Yarmukian seems to represent the earliest pottery stage. The Yarmukian was defined by M. Stekelis on the basis of soundings in Sh'ar ha-Golan, at the mouth of the Yarmuk River in the northern part of the Jordan Valley. The material recovered was related to a period earlier than both Jericho IX/PNA and VIII/PNB, and this is confirmed by its stratigraphic position in Munhatta (Stekelis 1950-51; 1953a; 1972). There, J. Perrot recognized two major Pottery Neolithic phases, 2B and 2A. 2B2, the earlier, was related to the Yarmukian Culture; 2B1 was identified with Jericho IX/PNA; and 2A included materials similar to Jericho VIII/PNB and Wadi Rabbah.

All the artifacts from Sha'ar ha-Golan came from a single level, composed of a grey earth (Stekelis 1950-51:2-4; Prausnitz 1970b:150).

The Yarmukian Culture is distinguished by pottery with incised herring-bone decoration, figurines carved out of pebbles (Stekelis 1952); and a flint industry including picks, chisels "some of which had a polished edge", many piercers, many deeply serrated sickle-blades, and a paucity of arrows (Stekelis 1950-51:4-8; Noy 1975: 128-130).

As indicated by the Munhatta sequence, Jericho IX/ PNA forms the next stage. According to D. Kirkbride it is contemporary with 'Amuq A/Early B (Kirkbride 1971: 285), although we disagree. This disagreement is based on the appearance of the DFBW in the Neolithic levels at 'Amuq which is earlier than Jericho IX/PNA. Jericho IX/PNA pottery is characterized by simple forms such as plain bowls, and globular jars with lug, knob, and ledge handles; it was straw-tempered and often burnished. The decoration consisted of triangles, line and zigzags in red paint on a cream slip (Droop 1935:169-171; Ben-Dor 1936:77-91).

Subsistence was based on fishing, hunting, livestock breeding and small-scale agriculture, much as it had been in the precceeding period.

Although a large number of PPNB type flints continued to be used in this phase, new types, such as deeply serrated sickle-blades, also appeared.

On the East Bank of Jordan only one excavated site Dhra' dates to the Late Neolithic 1. It has yielded sherds similar both in form and decoration to those from Jericho IX/PNA (Bennett 1980:30-39). Other sites dating to this phase have been discovered on survey in the el-Azraq basin, such as Azraq 1,2, 'Uweinid 9 and Kharraneh 2 (Garrard and Price 1977:114, 116, 120). At a site near er-Rumman sherds related to the Yarmukian

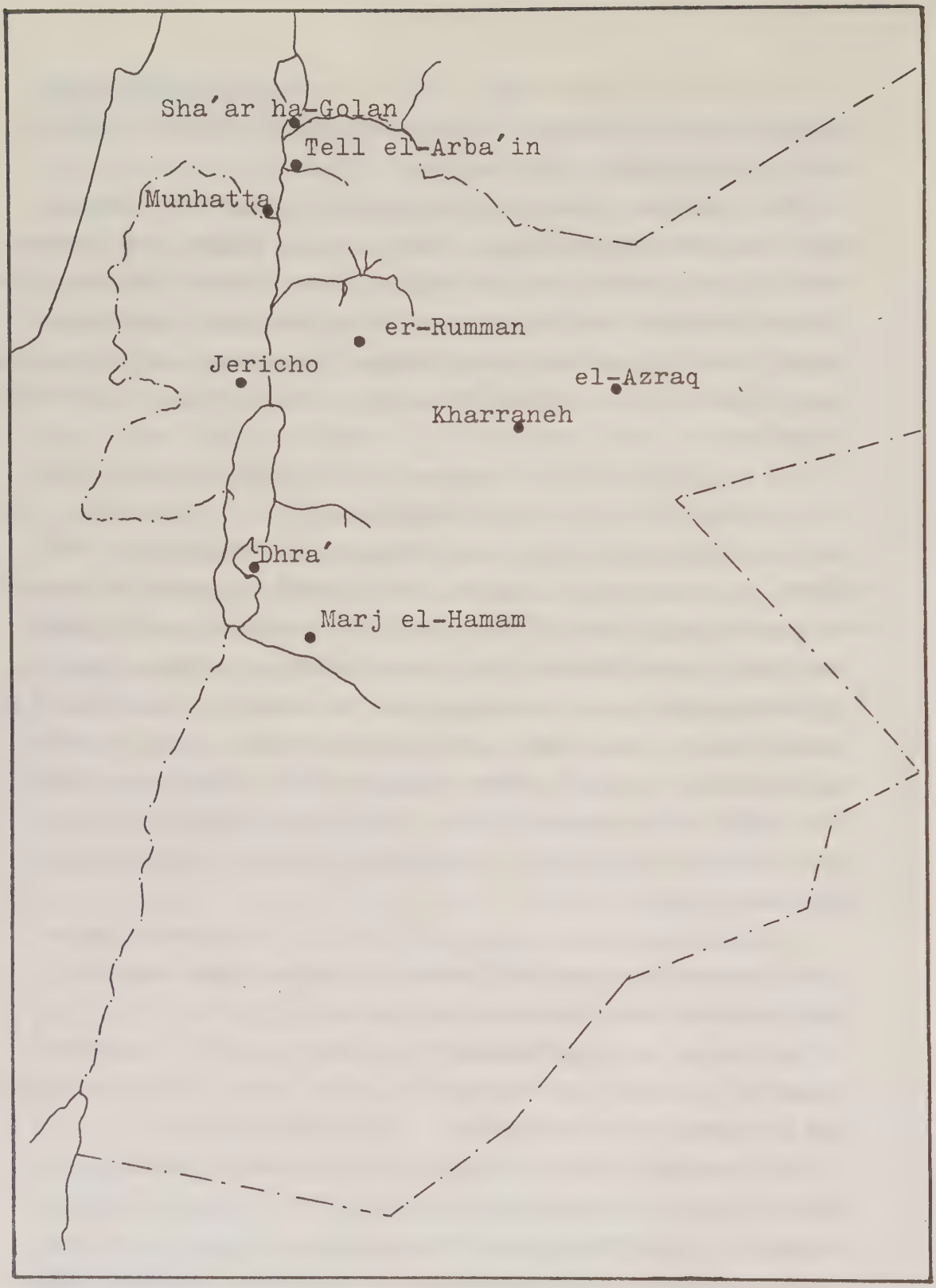


Fig.16 . Pottery Neolithic A Sites in Jordan

and Jericho IX/PNA were collected by C. Gillett from the American Center of Oriental Research in Amman (J. Sauer, personal communication). Also, I have been told by B. MacDonald that he found a PNA site, Marj el-Hamam, in the Wadi el-Hasa area during his survey in 1981.

Dhra'

Dhra' was found and first investigated in 1976 by T. D. Raikes, who emphasized that its flint industry, which included Khiamian points, could be compared with 8th millenium sites in Palestine and Syria (Raikes 1980:40, 50-61).

Dhra' is located ca. 15 km. north of Bab edh-Dhra'. The site is supplied with water by the Wadi Dhra', a perennial stream, which runs to the north-east of the site. The site has been described as a flint tool factory because of the large number of unfinished and waste tools (Raikes 1980:56). Blade-cores, long thin blades, scrapers, chisels, arrow-heads, polished basalt axes, chipped and ground limestone objects were collected on the site (fig.21). Raikes also noted the presence of Roman buildings, graves, and a water well at the site (Raikes 1980:56,58,59).

C. Bennett sounded the site briefly in 1979. Six areas were excavated. Area I, the largest, measured 27 m. north-south by 5 m. east-west. Four one meter square probe trenches were laid out in Area I on its east side. The flints published by Bennett came from these test trenches. Bedrock was reached in this and other areas. Very good floors were encountered, as well as a destruction level above Floors 5 and 6 (Bennett 1980:33).

In Area I pit-dwellings with floors were found, the edges of which had thin walls of pisé and stone. Mudbrick was also used (Bennett 1980:33,36).

The published pottery from Dhra' all comes from Area IV, immediately under the top soil. Bedrock was reached in this area at a depth of 85 cm. in the north-east corner and 40 cm. in the north-west corner. The pottery corpus can be paralleled in Jericho IX/PNA, although the Dhra' ware is not crumbly and had been fired at a higher temperature. Bennett argues that some of this pottery

assemblage seems closer to Jericho VIII/PNB, particularly the thinner ware, than to Jericho IX/PNA (Bennett 1980:36). She notes that the Khiamian points were not found in good stratigraphic context, although this does not necessarely mean that the site was not occupied in the Early Neolithic, Phase PPNB.

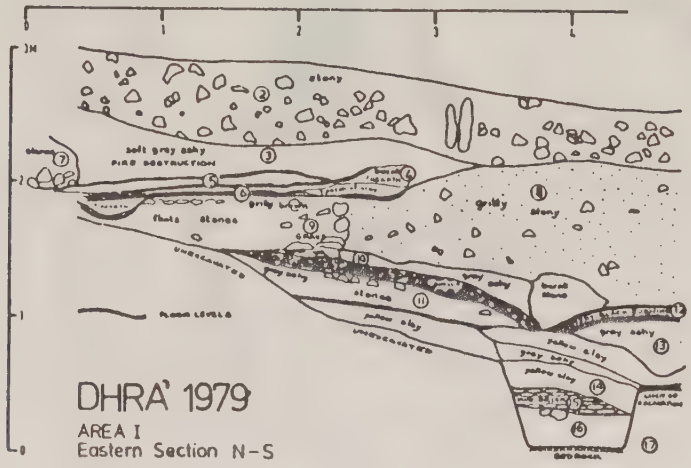


Fig. 17. Dhra' part of eastern section of Area A (after C. Bennett 1980).

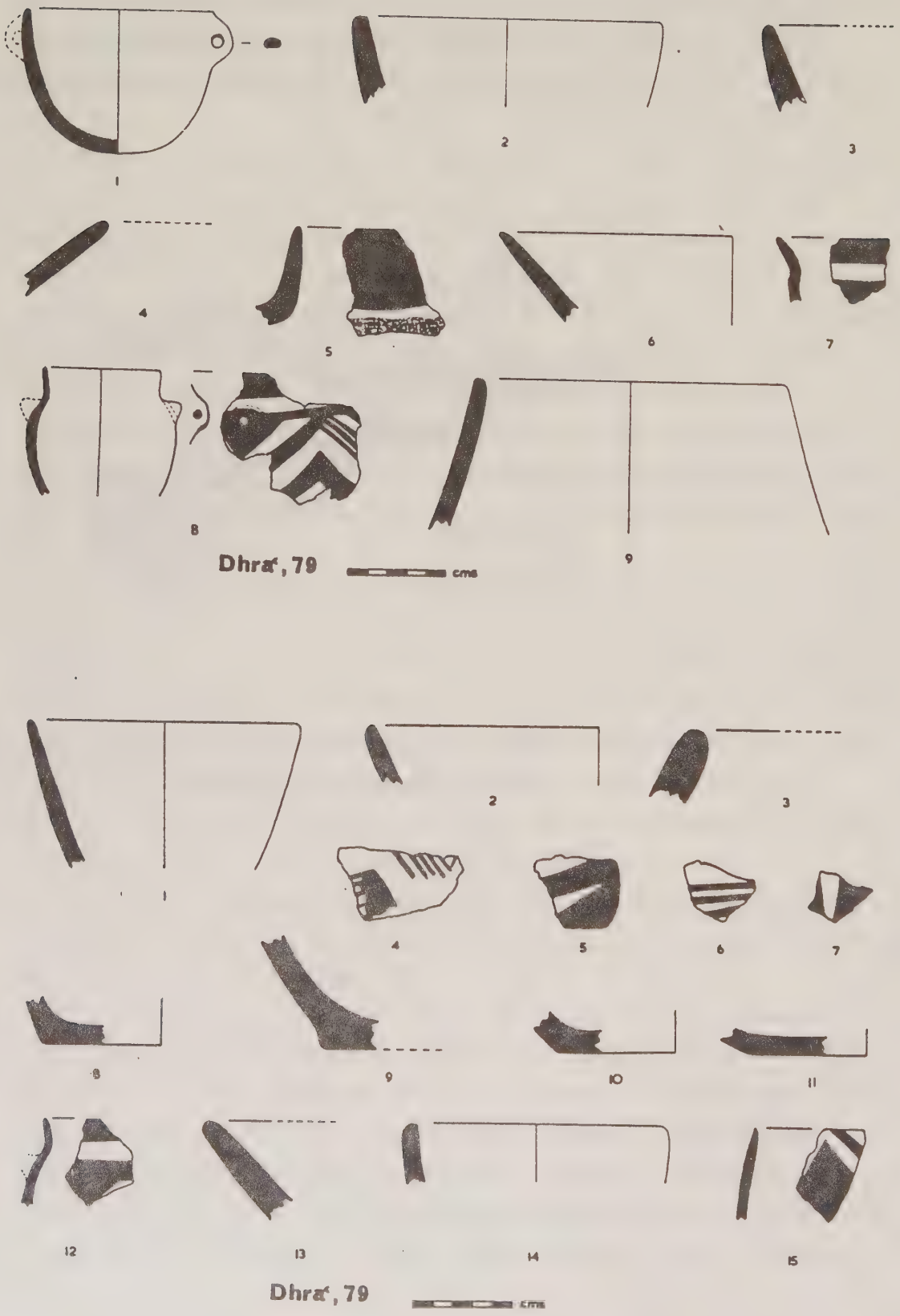


Fig.18 . Pottery objects ( after C. Bennett 1980)

Fig.19. Khiamian points ( after C. Bennett 1980).

Fig.20 . Dhra' flint implements ( After T. D. Raikes 1980).

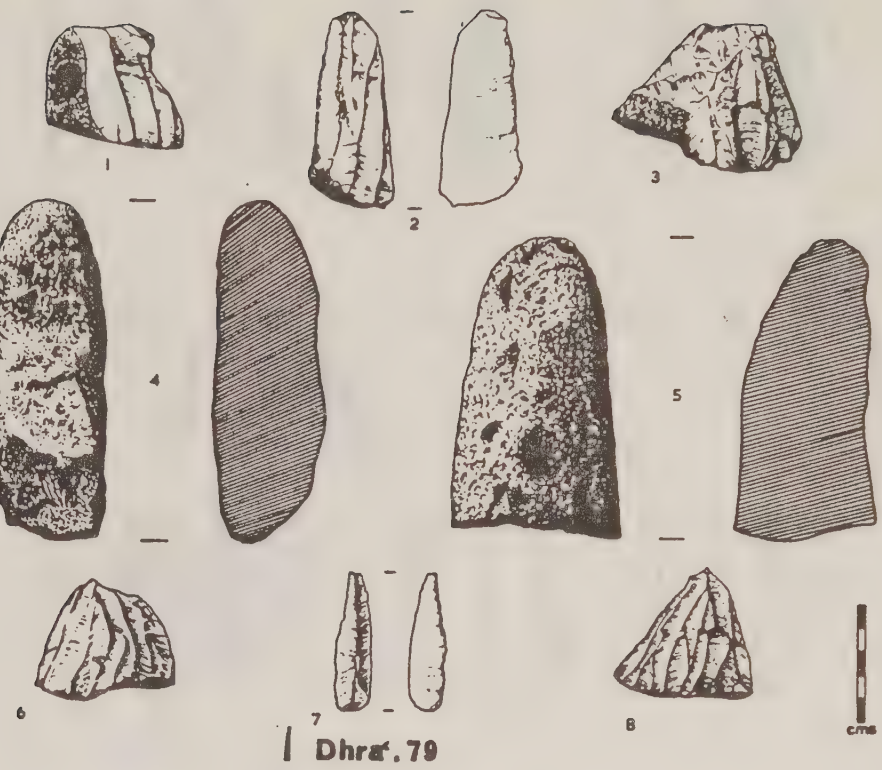


Fig. 21. Dhra' stone implements ( after C. Bennett 1980).

Late Neolithic 2

K. Kenyon was the first archaeologist to identify two pottery Neolithic phases, A. and B. This subdivision was based on the two different pottery assemblages found in the Pottery Neolithic pits at Jericho: Phase A, was identified with Garstang's IX, and B with VIII (Kenyon 1957a:85). Many scholars argue that the PNA strata at Jericho overlapped with the PNB ones, and because of this uncertain stratigraphy they prefer to include both in one single pottery period (de Vaux 1966:17). New excavations at Munhatta in Palestine and Tuleilat el-Ghassul in the East Bank of Jordan, however, have produced PNB sherds in contexts other those associated with the PNA (at Muhatta cf. p.200) or Ghassulian material (at Tuleilat el-Ghassul). This reinforces our point of view that the PNB culture is a part of the Neolithic period, if only a very late one, based on the evidence from Munhatta. Ghrubba, too, should be dated to the beginning of the Late Neolithic 2 Phase.

The structures found in the PNB levels at Jericho were built of bun-shaped bricks, unlike those used in either the Pre-Pottery Neolithic A and B, or those in the Early Bronze Age. The bricks were normally round in section with flat bases and curved tops, and were set in mud-mortar above a foundation wall built of a single course of stone (Kenyon 1957a:86).

This period is characterized by a more highly developed stone and pottery industry than previously known. At Jericho pottery found in pits dug into earlier houses differed from the PNA wares in method of decoration. Incised patterns, e.g. herring-bone, replaced designs in red burnished slip. Mat red or cream slip was used, and the paste was harder and better fired than before. Straw tempering became less common. In addition new forms appeared, particularly bow-rim jars and loop-handles with

widened attachments. Burnishing was restricted to small vases (Kenyon 1957a:85).

Besides Jericho, many other sites in Palestine have produced pottery and flint implements characteristic of this phase. These include Megiddo XX (Loud 1948:59-60), Beth-Shan Pits and Stratum XVIII (Fitzgerald 1934:13ff.; 1935:6-8), Sheikh 'Ali Level 1B (Prausnitz 1975:63), Balata "Shechem" (Toombs and Wright 1961:11ff.), and Tell el-Far'ah Level I (de Vaux 1947:394-433; 1948:544-580; 1955:541-584; 1961:557-592).

In the East Bank of Jordan Late Neolithic 2 is represented at Ghrubba, Tell esh-Shuneh North Level I, and Tell Abu Habil Level I (Mellaart 1956; 1962; and de Contenson 1960a).

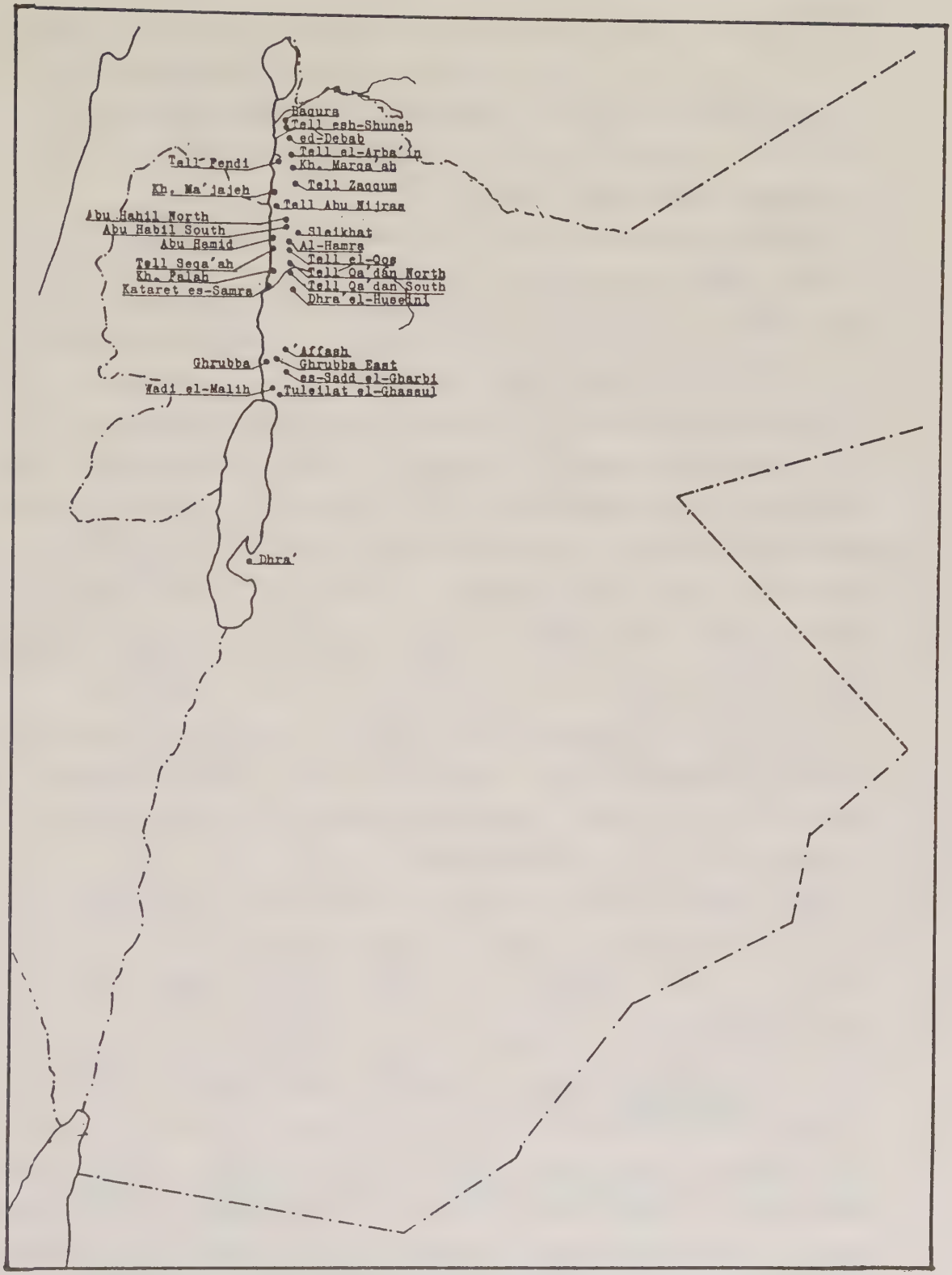


Fig. 22. Pottery Neolithic B Sites in Jordan

Ghrubba

Ghrubba is situated on the southern side of the Wadi Nimrin, about 2 km. west of the Police Station of the village Shuneh South on the main Jerusalem-Amman road. It is ca. 1 m. in height. The site was sounded in 1953 by Mellaart (Mellaart 1956).

During the second season of the Jordan Valley survey in 1976, the site was visited and surveyed again by Ibrahim, Sauer and Yassin, and the material collected will be discussed in the next section of this dissertation (P. 177). Let us now review the work done by Mellaart.

Mellaart excavated an ancient oval pit, measuring 5 x 3 m., which had been cut through a layer of unstable gravel down to the underlying soft limestone. Sixteen layers were dug. Layers 1-4, which sealed the Pit from above, distructed by a modern burial. These uppermost layers produced sherds which were said to be related to the Ghassulian Culture, and later in date than the Pit itself (Mellaart 1956:24).

Layers 5-16 produced a homogenous collection of sherds. The Pit was filled with layers of ash soil and gravel, the latter having either fallen in form the walls of the Pit or been put there intentionaly.

The pottery from Layers 5-15 was mostly handmade, but a few sherds may have been turn on a slow wheel as Mellaart suggested. Mellaart distinguished four catagories of pottery: painted and incised ware, painted ware, burnished ware, and plain or coarse ware. The first group was characterized by a red or brown paint or wash covering the vessel, as well as incised decoration. The incised decoration consisted of a horizontal band below the rim of the bowl and the base of the neck. In the case of jugs this passed through the opening of the loop-handles. Below the horizontal band were usually zig-zag or herring-bone decorations. Mellaart noted

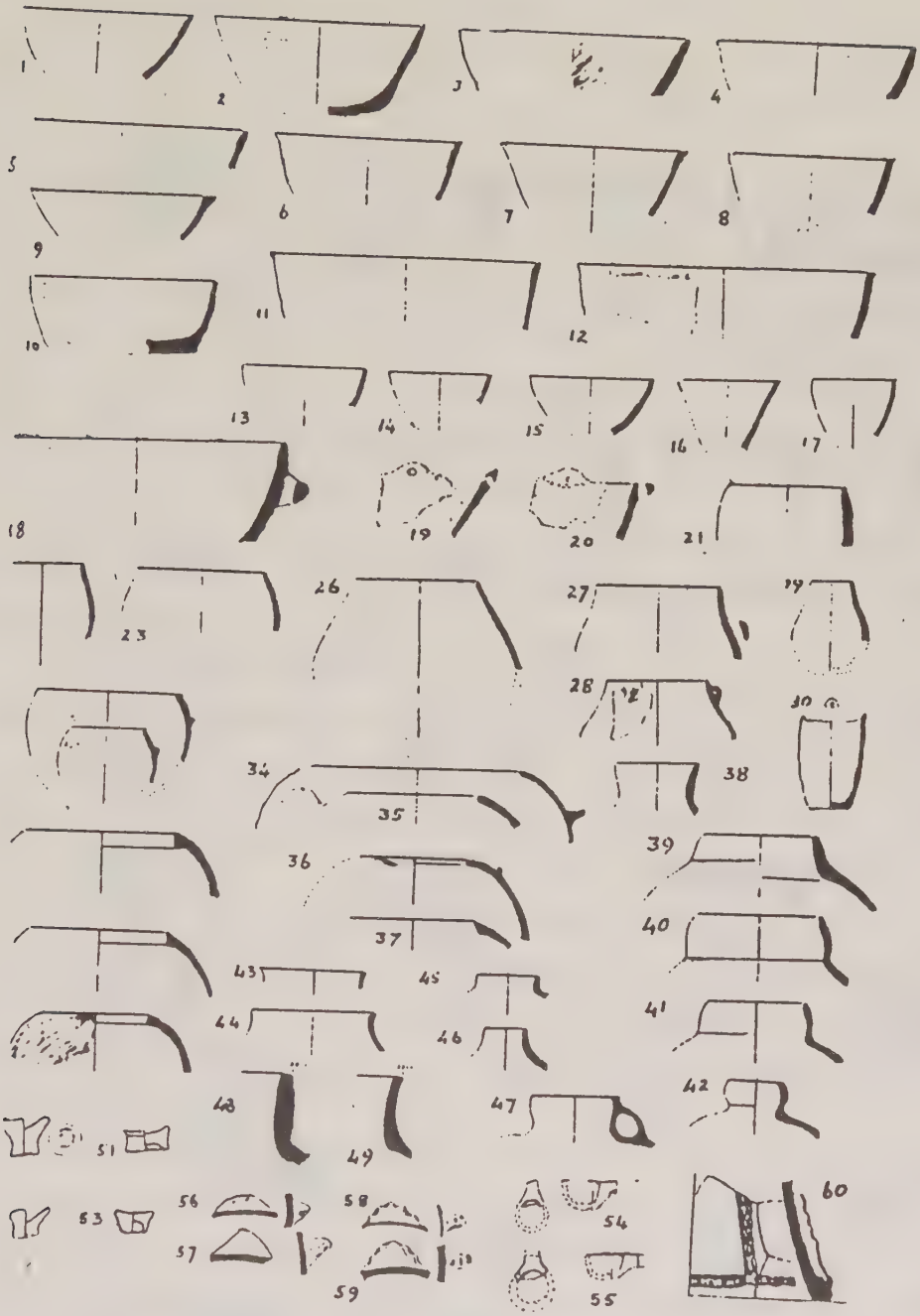

Fig. 23 . Ghrubba pottery vessels (after Mellaart 1956). Scale 1:5

Fig. 24. Ghrubba pottery (after Mellaart 1956).
Scale 1:5

that no painted and incised ware typical of Byblos or Hassuna Ib had been found (Mellaart 1956:29).

Painted ware, which Mellaart noted was absent at Sha'ar ha-Golan, was common at Ghrubba. No slipped sherds were found, but a very few were burnished, including one brown example.

Straw temper was visible only in the case of a few coarse white bowls (Mellaart 1956:30). Painted decoration consisted mostly of triangles, chevrons, diagonal parallel lines and dots (fig. 24). Mellaart argued that Ghrubba represented a different painted pottery tradition than that of Jericho, comparing it with Hassunian archaic painted ware (Mellaart 1956:31).

Bowls with knobs and with flaring sides, as well as small jars with lug-handles were recognized in the plain and coarse ware collection.

The material found at Ghrubba Layer 5-15 are different from those from Ghassul although Layers 1-4 at Ghrubba yielded some similarities e.g. bowls with mat-impressed bases, indented ledge-handles, spouts and high necked globular jars.

Bow-rim jars similar to those from Jericho VIII were found at Ghrubba but not at Ghassul, in the Ghassulian levels. Characteristic design elements at Ghrubba such as rows of dots, chevrons and diagonal, parallel line are not common at Ghassul.

Due to the fact that Ghrubba yielded some pottery forms distinct from those of Jericho IX and Sha'ar ha-Golan, and to the fact that it shows contact with the earliest painted pottery of Mersin and 'Amuq B., Mellaart placed Ghrubba in the later phase of the Hassuna period and earlier than Jericho IX and the Yarmukian (Mellaart 1956:32-33). We agree with Mellaart that Ghrubba has its own chracteristics, but cannot agree that Ghrubba should be earlier than Jericho IX and

Sha'ar ha-Golan. For instance, bow-rim jars like those from Jericho VIII have been found at Ghrubba. Thus, from our point of view Ghrubba may be related to a period later than the Yarmukian and Jericho IX/PNA and yet earlier than Jericho VIII/PNB.

Moore, on the other hand, has suggested that Ghrubba should be related to the Early Chalcolithic and not to the Neolithic period, stressing that the pottery published by Mellaart is very like the Ghassulian (Moore 1973:60). This argument is not confirmed by the pottery collected during our survey, which is unlike the Ghassulian, and more like Late Neolithic 2 (cf. below, page 200).

Tell esh-Shuneh (North):

Tell esh-Shuneh (North) is located in the northern part of the eastern side of the Jordan Valley. It is situated on the routes between north Palestine and Jordan, a fact which probably contributed to its importance. The site overlooks the Wadi 'Arab and is part of a large tell ca. 1 km. long and 10 m. high.

The site was originally surveyed and sounded in 1953 by J. Mellaart and de Contenson (de Contenson 1960a:12-31; 1960b:57-75). The test trench, excavated in three units, was carried down 4 m. to bedrock, 19 layers belonging to six levels were recognized. Levels I (Layers 19-17) and II (Layers 15-14) dated to the Middle and Late Chalcolithic, repectively, and were separated by a sterile layer (Layer 16). Levels III (Layers 13-8), IV (Layers 7-4), and V (found only in Mellaart's probe trench) were dated to the Early Bronze Age I, II, and III, respectively. Level VI (Layers 3-2) yielded objects of the Mediaeval Arabic period. This level is located under a disturbed layer (Layer 1) (de Contenson 1960b:58).

De Contenson noted that Level I produced bow-rim jars and connected it with Jericho VIII, Beth-Shan Pits and Stratum XVIII, Tell Abu Habil I, Murrabba'at, 'Amuq D, and the lower part of Ras Shamra IV (de Contenson 1960a: 20; 1960b:69-75).

It should be noted that, during a visit to the site in 1975 by the Jordan Valley Survey team no sherds of Level I date were found (Ibrahim, Sauer and Yassin 1976: 49). By this time the tell was badly eroded and threatened further by human activities.

Level II was said to be contemporary with Beth-Shan XVIII-XVI, Megiddo XIX and with Tell el-Far'ah II (de Contenson 1960a:25).

In order to ascribe a date for Level I rather than a Middle Chalcolithic date we shall take a closer look

at this material.

The pottery vessels from Level I are handmade. The ware is crude and poorly fired, and small inclusions are found; red slip or paint are used for decoration. One rim sherd in the collection is slightly burnished, while another has a red burnished slip covering the entire surface (fig.26).Thumb-indented bands or straight, horizontal incisions made with the finger-nail are also found.

Very few forms were distinguished within the sherds found in Level I, but they include cups, bowls, hole-mouth jars, straight-necked jars and jars with swelling neck (fig.26 ).

Handles are large loop-handles with elongated attachment. These are occasionally decorated with painted vertical bands of red paint. Lug-handles are also found.

Bases are flat, with either a sharp join at the base and angular sharp, or with a smooth, curving join. They are sometimes decorated with a red slip outside, or a red burnished slip on inside and outside; painted red bands or a white slip on the outer surface occur (de Contenson 1960a:16).

Parallels for these types have been found at Beth-Shan Pits and Stratum XVIII (Fitzgerald 1934; 1935), Tell el-Far'ah (de Vaux 1947; 1948; 1955; 1961), Jericho VIII (Droop 1935; Ben-Dor 1936) and Tell Abu Habil (de Contenson 1960a).

The flint industry found in Level I at Tell esh-Shuneh is represented by 66 pieces. Blades of Canaanean type, lame de dégagement, scrapers, blades, blunted back-blades used as sickle-blades, notched blades, small blades points, borers, notched flakes, and flakes were distinguished within this group (fig.27 ). They have been compared with flint tools found at Jericho, el-Khiam, Sha'ar ha-Golan and Abu Gosh (de Contenson 1960a:20).

The limestone objects found in Level I include a bowl and a mortar. In addition, a hollow-pedestal, a pestel and a basalt quern were found.

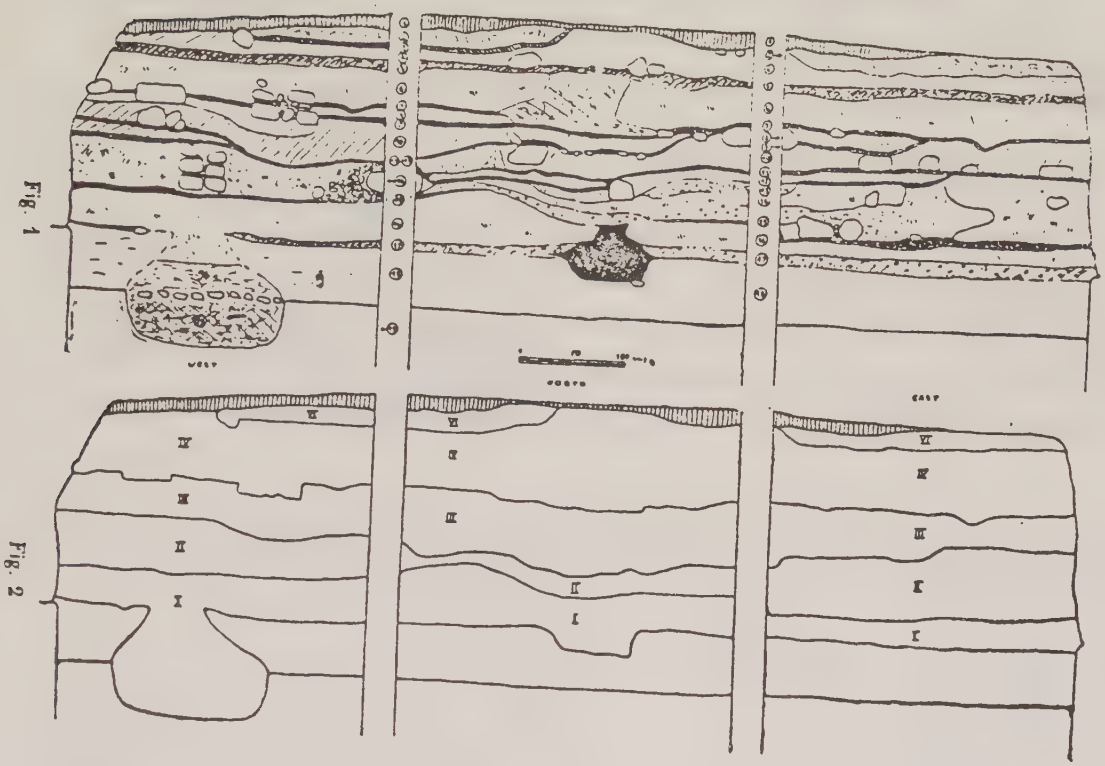


Fig. 25. Tell esh-Shuneh (after de Contenson 1960a).

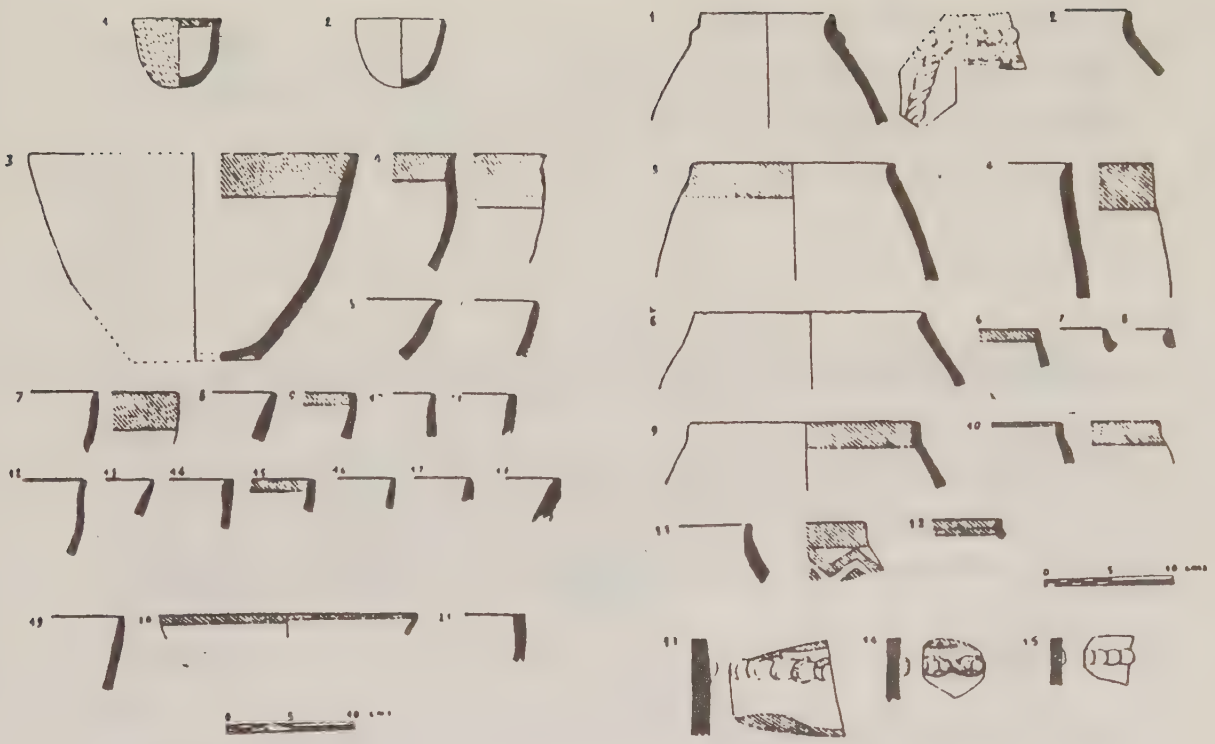

Fig. 26 . Tell esh-Shuneh pottery (after de Contenson 1960a).

Fig.27 . Tell esh-Shuneh flint implements (after de Contenson 1960a).

Tell Abu Habil

Tell Abu Habil is located south of the Wadi el-Yabis. It was first explored by N. Glueck (Glueck 1951a: 275-276), and later sounded by Mellaart and de Contenson in 1953 (de Contenson 1960a:31-49). In 1975 it was again surveyed by Ibrahim, Sauer and Yassin, whose Neolithic/Chalcolithic materials were studied by the writer (cf. below). Here, we shall discuss the pottery and flint from the two soundings carried out by Mellaart and de Contenson.

In Trench II (3 x 2 m.) bedrock was reached at a depth of ca. 2.5 m., and 10 layers belonging to three levels were recognized. Level I (Layers 10-8) was correlated with Tell esh-Shuneh I, Jericho VIII, Beth-Shan Pits and Stratum XVIII and Tell el-Far'ah I. It was called by the excavator Middle Chalcolithic (de Contenson 1960a: 35).

Level II, called Middle Chalcolithic B, was called Ghassulian although no typical Ghassulian elements were found. The loop-handle with splayed attachment found here appeares to be a survival from Level I (de Contenson 1960a: 37).

Level III is also related to the Ghassulian Culture, or Middle Chalcolithic B, and de Contenson considered it contemporary with Level II (de Contenson 1960a:44).

De Contenson's use of the terms Early Chalcolithic or "Yarmukian" for Megiddo XX, part of Tell el-Far'ah I, Mugharet Abu Usba' and parts of Jericho IX and VIII (de Contenson 1960a:45) is no longer acceptable, in light of the Munhatta excavations. However, let us now review the published materials from Levels I-III.

The pottery from Levels I and II in similar and parallels that found in Level I at Tell esh-Shuneh. The ware is coarse, with small mineral inclusions (de Contenson 1960a:33). It is sometimes decorated with thumb impres-

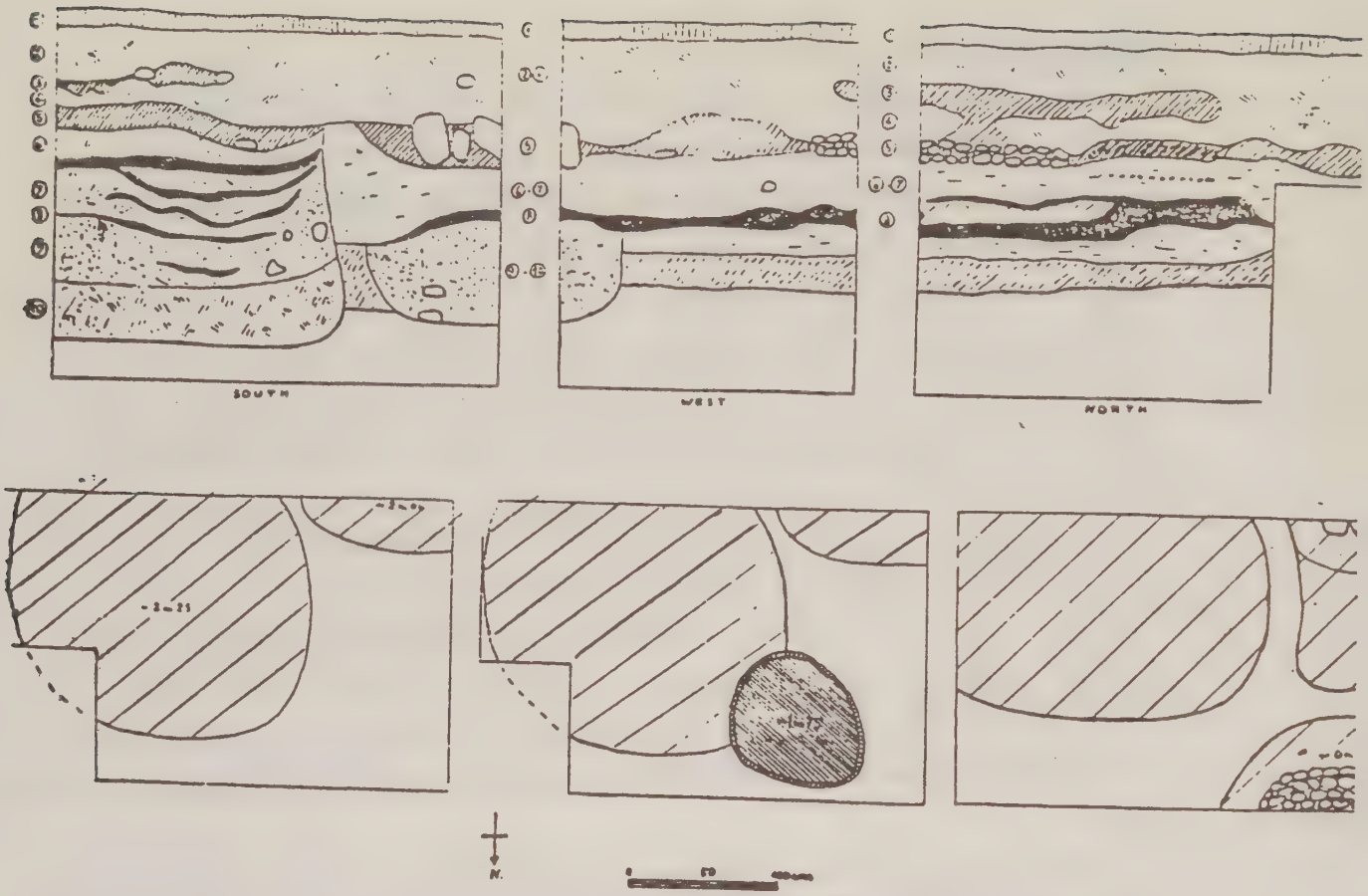


Fig. 28. Tell Abu Habil ( after de Contenson 1960a).

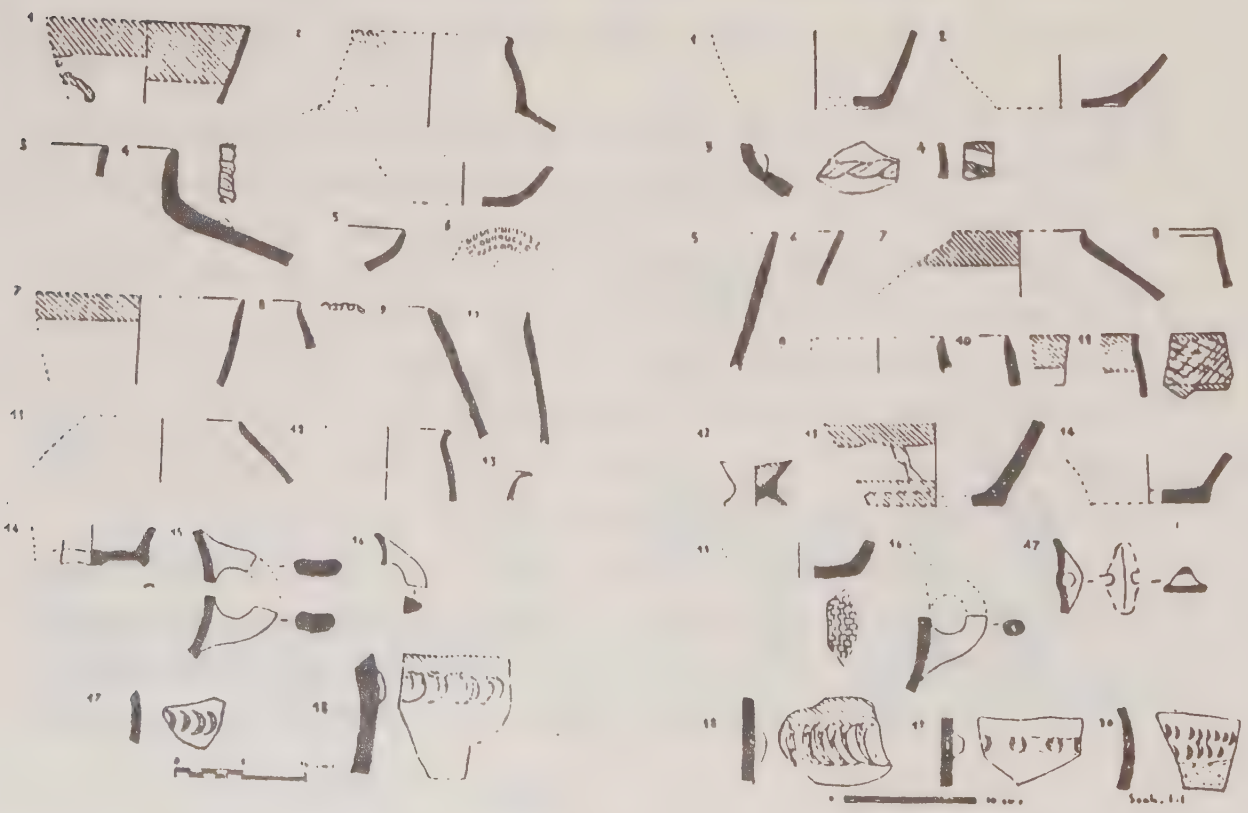

Fig. 29. Tell Abu Habil pottery ( after de Contenson 1960a).

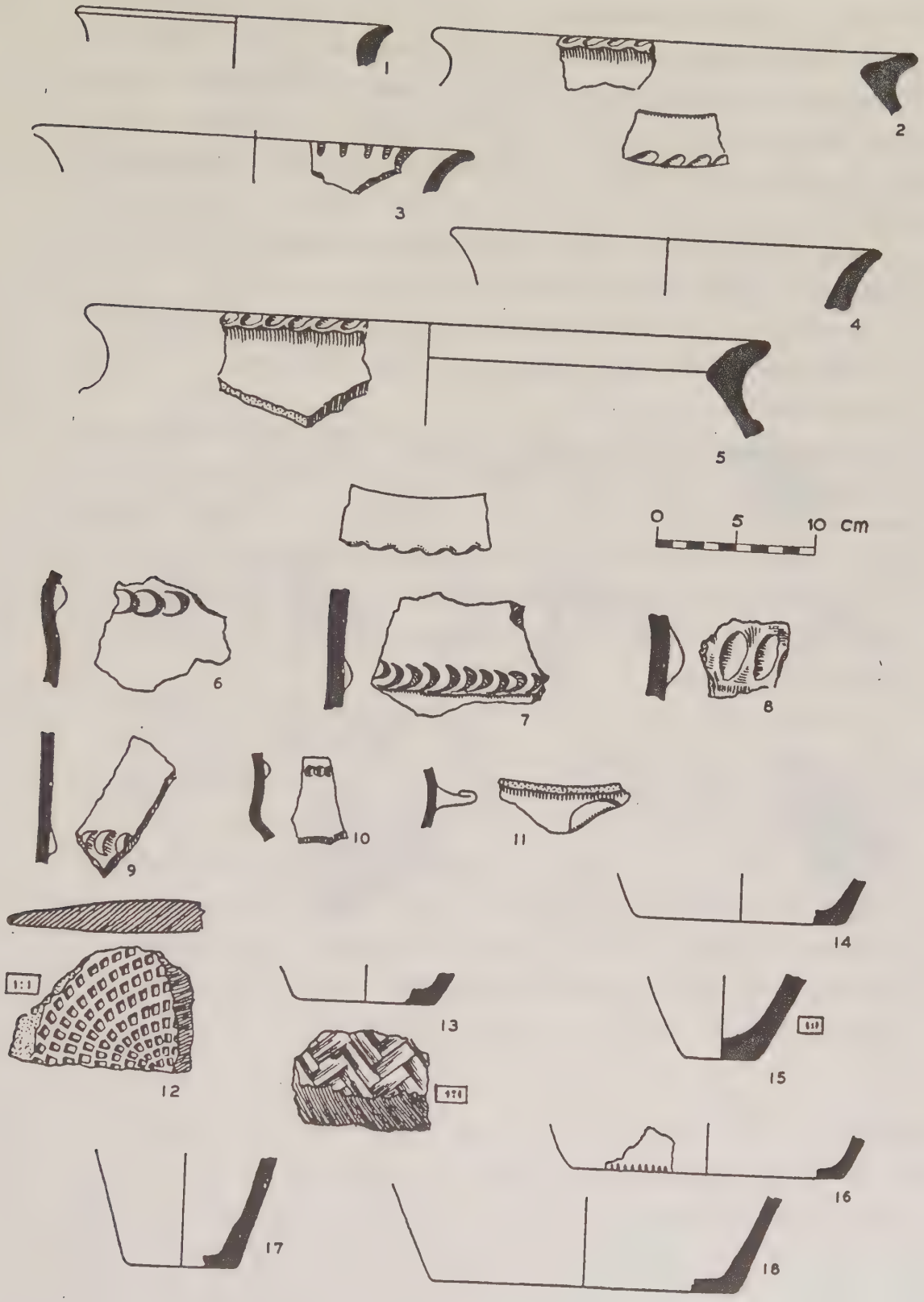


Fig.30. Tell Abu Habil pottery (after Glueck 1951).

sions, in other case with a red slip. It is handmade using the technique of coil construction. Very few forms occur in Level I. They include bowls with a band of red paint over and inside the rim, holemouth jars, jars with a swelling neck, and a potstand (fig.29 ).

Bases are either flat or concave. Some of the flat bases have mat impressions.

Parallels for these forms occur at Tell esh-Shuneh I, Beth-Shan Pits and Stratum XVIII, and Jericho VIII (de Contenson 1960a:34).

Level II produced only bowls and jars. The bowls are painted with red paint around the rim, while the jars are either holemouth jars or jars with a short, everted neck. These can be paralleled with examples from Megiddo XX-XIX, Tell Fendi, Tell es-Sa'idiyeh el-Tahta, Tell el-Far'ah I, Jericho VIII and Murabba'at (de Contenson 1960a:37).

Turning now to the flint industry, the collection from Level I consisted of only 11 pieces, including scrapers, blades, and flakes. Only six round scrapers, blades and flakes were uncovered in Level II. The richest flint collection comes from Level III. Within this assemblage of 43 pieces were hoes, scrapers, sickle-blades, blades, borers, pointed blades, denticulated blades and flakes (de Contenson 1960a:42-44).

In addition to the sites, discussed above, many others dating to the Late Neolithic 2 phase have been found on survey. Sherds with herring-bone decoration (fig.31 ) were collected by Nelson Glueck at Tell es-Sa'idiyeh during the extensive surveys of the East Bank of Jordan 1930-1947 (Glueck 1951: Pl. 149). This site was later sounded by de Contenson and Mellaart who related the material excavated to the Chalcolithic period (de Contenson 1960a:56).

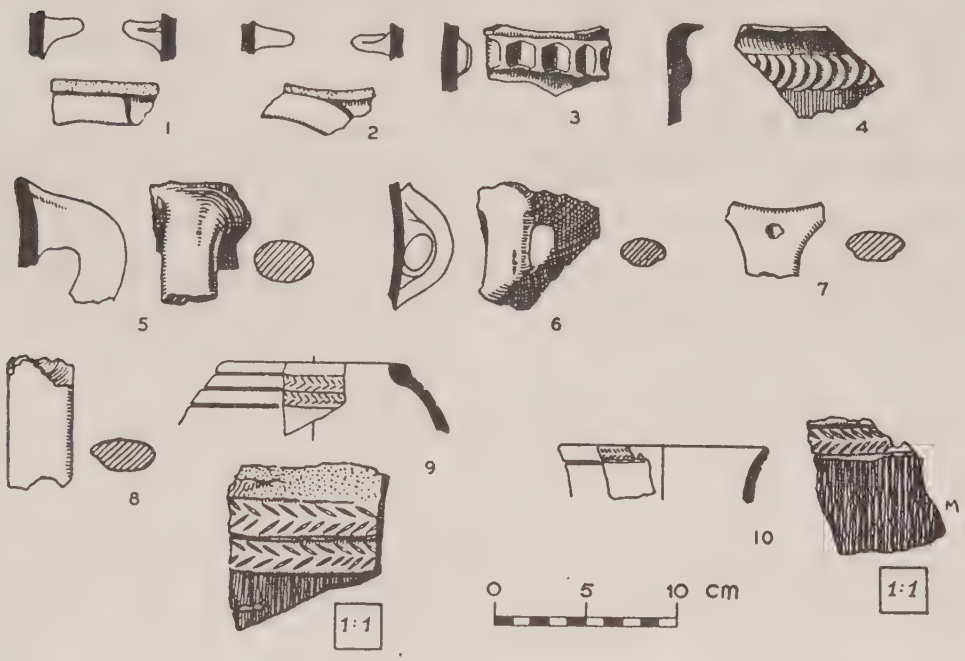


Fig. 31. Tell es-Sa'idiyeh pottery sherds (after Glueck 1951).

In the time between January and March 1978 a salvage survey was carried out in the King's Talal Dam Reservoir area in the Zerqa Valley, and the projected reservoir area of the Maqarin Dam in the Yarmuk River Valley, and Wadi 'Arab. This survey was co-directed by K. Yassin of the University of Jordan, and John M. Kerestes and Bryant

G. Wood of the University of Toronto (Kerestes et al. 1977-78:108-135). The material collected ranged in date from the Prehistoric to the modern era. Among the sites visited several are to be related to the Neolithic period. In the Maqarin Reservoir area and at sites Nos. 3 (el-Habis), 7 (el-Roba), 11 (el-Madkhanah), 18, 23, 26, 27 (Tabaqat Nasrah), and 29 flint implements belonging to the Neolithic period were collected. Flints related to the Neolithic period were published from the following sites: 2, 7, 26 and 27. Site 26 is considered to be the richest of these. Sherds have been published only from Sites 26 and 30 (Kerestes et al. 1977-78: Pls. LXXIV-LXXV).

In the King's Talal Reservoir area only Site 2 (el-Maida) and 11 (Abu Shawmar) yielded Early Neolithic flints. Moreover, no sites related to the Neolithic period were noticed in the Wadi 'Arab Reservoir area (Kerestes et al. 1977-78:126, 128, 129).

| No. | Site Name | Location | Surveys, Soundings or Excavation | Flint References | Pottery Referances | Architecture | Burials | Figurines | Economy | Fauna | Flora | Water Sources | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | 'Ain Abu Nkheileh | Wadi Rum, 5 km.south of the police station | a.Sur.1947 by A.Kirkbride & Harding b. Soun. by D. Kirkbride | 1.Stekelis 1947 2.Kirkbride 1978 | --- | Round and rectangular | --- | --- | | Ibex,fox gazelle, hare,hyrax leopards, cheetahs, feral cats rodents. | Grasses ferns, pistacio wild fig, palm. | 'Ain Abu Nkheileh spring | Early Neo. (PPNB) and Late Neo. (PNA) |
| 2. | 'Ain el-Qatar | | Sur. 1957 by Zeuner | | | | | | | | | | Early Neo. (PPNB) |
| 3. | Azraq | ca. 60 km. east of Amman. In the desert | a. Sur.1957 Zeuner; b.Sur.1960 Field c.Sur. 1977, 1975 by Gararrad & Price | 1. Zeuner 1957 2.Gararrad & Price 1975,1977. | | | | | | | | Perennial spring and marchland | Natuf., Early Neo. (PPNA,PPNB) & Late Neo. (PNB) |
| 4. | Beidha | south Jordan. Ca.15 km. NE of Petra | a.Excav. 1958-1966 by D. Kirkbride | 1.Kirkbride 1966 2.Mortenson 1970 | | Rectangular and Circular houses. -plastered floors and walls. - dry stones,limestones and slabs of sandstone. -very small room -corridor buildings | -15 burial -individual graves -childern were buried intact, adults headless cf. Kirkbride 1967a:9. | - Animal "ibex", -human "mother goddess" | -Cultivation -herding -trading | cf. Kirkbride 1966:66-67. | cf. Halbaeck 1966:61-66 | | Natuf., Early Neo. (PPNB); C14 dates |

Fig. 32. Published information.

| No. | Site Name | Location | Surveys, Soundings and Excavations | Flint References | Pottery References | Architecture | Burials | Figurines | Economy | Fauna | Flora | Water Sources | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5. | Dhra' | 5km. east of Bab edh-Dhra' | -Sur. 1980 Raikes. -Soun.1980 Bennett | -Raikes 1980 -Bennett 1980 | - Bennett 1980 | Pit dwellitngs | | | | | | | Early Neo. (PPNB) Late Neo.1 (PNA) |
| 6. | el-Qoseir | | -Sur. 1957 Zeuner | | | | | | | | | | Early Neo. (PPNB) |
| 7. | Ghrubba | Jordan Valley | -Soun.1953 Mellaart | -Mellaart 1956 | -Mellaart 1956 | Pit daellings | Modern | | | | | Wadi Nimrein | Late Neo.2 (Ghrubba) |
| 8. | Hisma | to tne N. of the road to el-Mudawwra at 25km. from its junction with the Ma'an-Aqaba road | -Sur.1947 A.Kirkbride & Harding. -Sur.1957 Zeuner. -Sur.1971 Copeland & Hours. -Sur. 1975 Price & Gararrad | -Stekelis 1947. | | | | | | | | Differnt springs | Late Neo.1, 2 (PNA?, PNB) |
| 9. | Jebel 'Uweined | Azraq basin | -Sur. 1957 Zeuner - Sur. 1977 Gararrad & Price | -Gararrad and Price | | | | | | | | Springs | Early Neo. (PPNA,PPNB) Late Neo. 1 and 2(PNA? PNB) |
| 10. | Jurf ed-Darawish | east of Tafileh | -Sur.1963, 1967 Raikes | -Raikes, 1963,1967 | | | | | | | | | Early Neo. (PPNB) |
| 11. | Khrraneh | Azraq basin | -Sur. 1957 Zeuner. -Sur. 1977 Gararrad & Price. | -Gararrad & Price 1977. | -Gararrad & Price 1977. | | | | | | | | Early Neo. (PPNA,PPNB) Late Neo. 1& 2 (PNA?;PNB) |
| 12. | Khatt el-Shibib | SE of Beidha. | -Sur. 1957 Zeuner. | | | | | | | | | | Early Neo. (PPNB) |
| 13. | Khirbet el-'amame | | -Sur. 1970 Mittmann | | | | | | | | | | Early Neo. (PPNA) |
| 14. | Qa el-Mukeizen | | -Sur. 1957 Zeuner | | | | | | | | | | Early Neo. (PPNB) |

Fig. 33. Published information.

| No. | Site Name | Location | Surveys, Soundings and Excavations | Flint References | Pottery References | Architecture | Burials | Figurines | Economy | Fauna | Flora | Water Sources | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15. | Qasr el-Hallabat | in the desret | | | | | | | | | | | Early Neo. (PPNB) |
| 16. | Salihi | near Suweileh | -Sur. 1959 Kirkbride | -Kirkbride 1959:53. | -Kirkbride 1959:53. | | | | | | | | Late Neo. (PNB) |
| 17. | Shu'eib Bridge | Jordan Valley | -Sur. 1957 Zeuner | | | | | | | | | Wad Shu'eib | Early Neo. (PPNB) |
| 18. | Tell Abu es-Suwwan | near Jerash E. of Hadrian's arch | -Sur. 1948 l. Harding -Soun.1955 Kirkbride | -Kirkbride 1958 | | | | | | | | Wadi Jerash | Early Neo. (PPNB) |
| 19. | Tell Abu Habil | Jordan Valley, to the south of the Wadi el-Yabis. | -Sur.1951, Glueck -Soun.1953 Contenson & Mellaart -Sur. 1975 Ibrahim, Sauer & Yassin | -Glueck 1951 -Contenson 1960a | -Glueck 1951 -Contenson 1960a | Pit dwelling | | | | | | Jordan River | Late Neo.2 (PNB) |
| 20. | Tell es-Sa'idiyeh | Jordan Valley near Deir 'Alla | -Sur.1951a Glueck -Soun.1953 Contenson & Mellaart | -Glueck 1951,1951a -Contenson 1960a | -Glueck 1951, 1951a. -Contenson 1960a | | | | | | | Jordan River | Late Neo.2 (PNB) |
| 21. | Tell esh-Shuneh (North) | Jordan Valley | Soun. 1953 Contenson & Mellaart -Sur. 1975 Ibrahim, Sauer and Yassin | -Contenson 1960a | -Contenson 1960a | Pit dwelling | | | | | | Jordan River & Wadi 'Arab | Late Neo.2 (PNB) |
| 22. | Umm er-Rassal | | -Sur. 1957 Zeuner | | | | | | | | | | Early Neo. (PPNB) |

Fig. 34. Published information.

| No. | Site Name | Location | Surveys, Soundings and Excavations | Flint References | Pottery References | Architecture | Burials | Figurines | Economy | Fauna | Flora | Water Sources | Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23. | Wadi Dhobai (Site B) | ca. 60 km. E. of Amman | -Exc. 1938 Waechter and Seton-Williams<br>-Sur. 1943, 1951. | -Waechter and Seton-Williams 1938. | | Round | | | | | Small fox, badger, small hare, small rodent, gazelle, rock partridge, small tortoise. | A wadi and springs | Early Neo. (PPNB) |
| 24. | Wadi el-Yabis | Jordan Valley. | -Soun. 1953 Kirkbride. | -Kirkbride 1953. | | | | | -Cultivation<br>-hunting | | | Wadi el-Yabis. | Early Neo. (PPNA?) |

# CHAPTER III

# THE UNPUBLISHED ARCHAEOLOGICAL MATERIAL FROM JORDAN (EAST BANK)

## CHAPTER III

### THE UNPUBLISHED ARCHAELOGICAL MATERIALS FROM JORDAN

In 1975 and 1976 the Department of Antiquities, Jordan University, and the American Center of Oriental Research in Amman conducted an archaeological survey on the eastern side of the Jordan Valley. These institutions were represented by Mo'awiyeh Ibrahim, Khair Yassin and James A. Sauer respectively. They have generously permitted me to study the material belonging to the Neolithic/Chalcolithic period, which they collected.

The Jordan Valley being part of the Jordan rift extending from Libanon in the north to the Red Sea and beyond in the south has been affected by several major tectonic movements: it lies entirely below sea level, and as a matter of fact it is the deepest depression in the world, ca. 394 m. below sea level (1300 feet) (Anati 1963:31; Perrot 1968:307-312). The valley itself is ca. 105 km. long stretching from the Sea of Tiberias in the north to the Dead Sea in the south. The Jordan River meanders through its entirely (Abel 1967:80). The Arabic name G h o r has been given to the relatively flat bottom of the valley, which is about 3-5 km. wide in the north and ca. 10-13 km. wide in the south. The name e z - Z o r has been given to the small secondary valley in which the river flows, and the semicircular hilltops between the Zor and the Ghor are known as Q a t t a r a (Blankenhorn 1914:83-84; Abel 1967:80).

On the eastern side of the Jordan Valley are a number of small rivers and wadies which run down from the surrounding mountains, such as the Yarmuk, 'Arab, Ziglab, Jurm, Kufrinja, Rajib, Zerqa, Shu'eib, Kafrein, Hesban, and 'Adheimeh (Abel 1967:cartes IX and X).

Agricultural yields in the northern part of the valley exceed those of the south, due to the greater amount or precipitation in the former during the months of October

through May, ca. 380 mm.; the south receives only about 164 mm.

The East Ghor Canal, dug in 1960, diverts water from the Yarmuk River and brings it as far south as the Deir 'Alla region.

Many archaeologists recognizing the importance of the Jordan Valley, have conducted archaeological surveys and soundings there. Nelson Glueck carried out the most extensive survey of the region in 1939-1947 (Glueck 1951a: 236-422). Other surveys have been conducted by W. F. Albright (Albright 1926:13-74), and Henri de Contenson and James Mellaart in 1953 (de Contenson 1960a; 1964; and Mellaart 1962). The Jordan Valley Survey mentioned above, worked in 1975 and 1976 (Ibrahim, Sauer and Yassin 1976:41-66), and most recently a salvage survey was conducted between January 14 and March 15, 1978 in the Yarmuk, Zerqa, and Wadi 'Arab Valleys in northern Jordan (Kerestes et al. 1978:108-135).

Next we shall discuss the pottery and flints from 30 Neolithic/Chalcolithic sites surveyed in 1975 and 1976.

About 400 pottery sherds were collected on these sites. The collections have been treated separately, and a description of the site including location, topography, measurements, indications of any installations, tombs, cisterns, or routes/paths is following by a comparison between this material and other assemblages in Palestine, Jordan, Syria, Lebanon, and occasionally Mesopotamia. Very few parallels were recognized between our material and collections from the areas last mentioned.

We shall first turn to a discussion of the flint implements collected. I would like to thank Gary Rollefson, of the American Schools of Oriental Research, who helped in the selection of this group.

As each site has its own character, belonging to one or another phase of the Neolithic Culture, obviously each group of flint tools from a site had to be treated as

a separate collection, with a comparative study between them to be reserved for the conclusion. It should be mentioned again that the collection to be discussed here is strictly from the surface and does not include any excavated material. In that we feel a frequency study of this collection would be misleading, a typological study has been presented.

Two previous studies of the flint artifacts of the Neolithic Culture have been utilized, that of Cauvin (1968) and that of Mortensen (1970).

Before presenting a detailed discussion of the implements found at each site, we shall give a general description of the tool types which occur within the collection.

1. Cores: these can be subdivided into four types:

a. Irregular flake cores: an irregularly shaped core made by flaking from one or two platforms (Pl.54:5-7).

b. Flake-cores with one striking platform: flake-core formed by flaking from one or two platforms.

c. Blade-cores with one striking platform: blade-cores are different than flake-cores in that the flaking angle is narrower. This type has only one striking platform.

d. Blade-cores with two opposite striking platforms (Pl. 55:1).

2. Celts: these are either ovoid or roughly triangular in shape. The sides curve toward the butt. They are mostly bifacially retouched by squamous flaking. Two types of celts were distinguised:

a. Celts without polished edge (Pls. 55:3; 56:1-2).

b. Celts with polished edge (Pl. 57).

3. Adzes: these may be made either on a flake (Pl. 58:1) or on a bifacial (Pls. 58:2-3; 59). They are also subdivided into two types:

a. Adzes without polished edge (Pls. 58; 59).

b. Adzes with polished edge (Pl. 61).

4. Chisels: these are made on bifacial, and normaly have curving sides approaching the edge and butt (Pl. 63:1-2). Some are polished (Pl. 63:2).

5. Hammerstones: within the collection of flint tools found in the Jordan Valley Survey 1975 and 1976, only one single piece (Pl. 62:1) was identified as a Hammerstone. It is roughly rectangular in shape, and the edges are covered with battering scars.

6. Scrapers: two types of scrapers were recognized:

a. Notched-scrapers (Pls. 63:3-5; 64): these are mostly made on flakes, with a steeply retouched concavo-convex edge.

b. Side-scrapers (Pls. 65; 66; 67): made on flakes, with steep retouches on the convex edge.

Fan-scrapers belonging to the Chalcolithic period are also found here (Pls. 66:5-6; 69:1-2).

7. Knives: two types of flakes and blades were identified as knives:

a. Notched-knives (Pl. 68).

b. Unretouched knives (Pls. 69; 70:1-3).

8. Sickle-blades: five types are found here:

a. Sickle-blades with sheen (Pl. 71).

b. Sickle-blades with end-retouched (Pls. 73:2-4).

c. Backed sickle-blades (Pl. 74): with steep retouch on the bank.

d. Denticulated sickle-blades (Pl. 72:6-7).

e. Large sickle-blades (Pl. 70:4-5).

They are generally made on blades and have either triangular or trapezoidal sections.

9. Borers (Pls. 77; 78): these are made on flakes in general, and the points are formed at the distal end by steep retouch.

10. Burins: only one single piece made on a blade was distinguished as a burin tool (Pl. 79:6). The edge was shaped at one end by one burin-blow and retouchings on the ventral side.

11. Pointed pieces (Pl. 79:2-5): four pieces made on flakes and with points were found. It may be that they were used as awls.

12. Retouched Pieces (Pls. 80; 81): these are made either on flakes or blades and have either trapezoidial or triangular shape with retouches along the sides. Some of them become narrower at the distal and of the tool.

Below is a table showing the tool type distribution at each site:

| | Irregular flake-core | Flake-core with one striking platform | Blade-core with one striking platform | Blade-core with two striking platform | Celts without polished edge | Celts with polished edge | Adzes without polished edge | Adzes with polished edge | Chisels | Hammerstones | Notched scrapers | Side Scrapers | Notched knives | Knives | Sickle-blades with gloss | End-retouched sickle-blades | Backed sickle-blades | Denticulated sickle-blades | Large sickle-blades | Borers | Burins | Pointed tools | Retouched pieces |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Baqura | | | | | | | | | | | X | | | | | | | | | | | | |
| Tell el-Arba'in | | | | | | | | | | | X | | X | | | | | | | X | | | |
| Tell Fendi | | | | | | | | | | | | | | | | | | | | | | | |
| Khirbet Marqa'a | X | | | | | | | | | | X | | | X | | | | | | X | | | |
| Abu 'Urabi | | | | X | | | | | X | | | | X | | | | | | | | | X | X |
| Tell Zaqqum North | X | X | | | | | | | | | X | | | | X | X | X | | | | | X | X |
| Tell el-Ma'ajajeh | | | | | | | | | | | | | | | | | | | | | | | X |
| Tell Abu Nijras | | | | | | | | | X | | | | | | X | X | X | X | | | | | |
| Tell Abu Habil South | | | | | | | | | | | | | | | | | | | | | | X | X |
| Tell Abu Habil North | | | X | | | | | | | | X | X | | | | | | | | | | | X |
| Merazzeh | X | | | | | | | | | | | X | X | | | | | | | X | | X | X |
| ed-Debab | | | | | | | | | | | | | | X | | | | | | | | | |
| Maqbaret es-Sleikhat | | | | | X | | | | | | | | | | X | X | X | X | | | | | |
| Tell Abu Hamid | | | | | X | X | X | X | | X | X | X | X | X | X | X | X | | | X | | | X |
| Al-Hamra | X | | | | | | X | | | | | X | | X | X | X | X | X | | | | | X |
| Tell Seqa'ah | | | | | | | | | | | | | | | | | | | | | | | X |
| Khirbet Falah | | | | | | | | | | | X | | | | | X | X | X | | | | | |
| Tell el-Qos | | | | | | | | | | | | | | | | | | | | | | | |
| Tell en-Nkheil | | | X | | | | | | | | | | X | | X | X | X | | | X | | | |
| Tell Qa'dan North | | | | | | | | | | | | | | | | | | | X | | | | |
| Tell Qa'dan South | | | | | | | | | | | | | | | | | | | | | | | |
| Kataret es-Samra | | | | | | | | | | | | X | | | X | X | X | X | | | | | |
| Ktar Tell Zakari | X | | X | X | | | | X | X | | X | X | | X | | | | | | X | | X | |
| Dhra' el-Huseini | X | X | | | X | | | | | | X | X | | | | | | | | | | | |
| Ghrubba | | | | | | | | | | | | | | | | | | | | | | | |
| 'Affash | | | | | | | | | | | | X | | X | | X | | | | X | | | X |
| Ghrubba East | | | X | | X | X | X | | X | | | X | | X | | | | | | | | | X |
| es-Sadd el-Gharbi | X | | | | X | X | X | | X | | | | | | | | | | | X | X | | X |
| Wadi el-Malih | | | | | | | | X | X | | | X | | | X | X | X | | | | | X | |

Fig. 36. A table shows the tool types distribution.

BAQURA

Baqura is located in the northern part of the Jordan Valley, northwest of the village of Shuneh el-Shamalieh near Irbid. The site was visited by the Jordan Valley Survey team in February 1975. Two main areas were surveyed: Baqura Main, is located in the middle of the village; modern houses have been built over and around the site. Baqura Middle, is located on the western side of the village, in an area where houses were being built. No sounding or excavations have ever been made at the site.

Pottery

All of the pottery sherds are handmade, and well fired, with the exception of Pl. 1:6, which has a dark core. Four forms of decoration occur in the collection from Baqura, painting (Pls. 1:1, 4; 2:10-14), light red or reddish brown slip (Pls. 1:2,3; 2:9), rope-moulding (Pl. 1:5), and notching (Pl. 2:7-9).

Since all of the sherds from Baqura are body sherds, we often can not tell what forms are present. Lug-handles (Pl. 1:1-4) may very likely come from bowls, based on the parallels to be discussed below. Pl. 1:5,6 may be parts of jars, since rope-moulding was usually used for decoration on large jars.

Tell Abu Habil, located on the eastern bank of the Jordan Valley, produced some sherds similar to those of Baqura (de Contenson 1960a:311).

Material from Level I, dated by de Contenson to the Middle Chalcolithic period, provides some parallels with Baqura. It has been compared with Jericho VIII/PNB, Beth-Shan Pits and Stratum XVIII, Tel el-Far'ah I, and parts of Murabba'at (de Contenson 1960a:35).

Parallels between the Baqura sherds and Palestinian pottery are numerous. At Beth-Shan Neolithic material comparable to the Baqura wares came out of pits dug from Stratum XVIII into virgin soil (Fitzgerald 1934:

125; 1935:6). This material was characterized by lug-handles, flat bases, and thumb-impressed moulding (Fitzgerald 1934:125).

Similar pottery was also found at Tell el-Far'ah, near Nablus in the West Bank of Jordan. Although de Vaux, in his report on Tell el-Far'ah, illustrated bow-rim jars parallel to those of Jericho VIII, he considered them Chalcolithic (de Vaux 1961:fig. 1; 569, 572). Elsewhere de Vaux assigned similar material from Trench V, c o t e 33, and Square 2, c o t e 34-50 at Tell el-Far'ah to Enéolithique Moyen (de Vaux 1947:397) comparing it to Jericho VIII and Beth-Shan XVIII (de Vaux 1947:398).

Megiddo Stratum XX also shows parallels to the Baqura material. This stratum is located just above the bedrock and under Stratum XIX, dated to the Early Bronze Age (Loud 1948a:59-60). Comparative material was also found in Jericho VIII.

Painted pottery sherds similar to those from Baqura (Pl. 2:10-14) were also found at Tuleilat Batashi in Palestine in Strata IVa, IVb, and III (Kaplan 1958a: 9-24 "Hebrew"; 83 "English Summary"). The excavator has noted parallels between Stratum IVa and Jericho IX. Stratum IVb contained Dark Faced Burnished Ware considered earlier than Jericho IX. Stratum III was dated by the excavator to the Chalcolithic period, although Yarmukian sherds were also found (Kaplan 1958a:83 "English Summary").

Notched sherds similar to those from Baqura (Pl. 2:8-9) have also been found at Wadi Rabbah, where they have been called Wadi Rabbah Pottery (Kaplan 1958b: fig. 6). For this Kaplan has suggested a date sometime between the Ghassulian and the Neolithic period, calling it Pre-Ghassulian (Wadi Rabbah) (Kaplan 1958b:153).

No parallels with collections in Lebanon or Syria were found by this writer.

To sum up, based on the above comparisons, the pottery from Baqura can be generally dated to the Late Neolithic 2 (PNB period).

Flint industry:

The flint tools found at Baqura included blades and scrapers.

1. Blades: five blades were collected, four of them made on thin flakes. They vary in size, ranging between 43 mm. - 81 mm. in length, and 21 mm. - 34.5 mm. in width. They were struck from the platform opposite the direction of flaking, and are irregularly retouched along the cutting sides.

2. Notched-scrapers (Pl. 64:3): only one single scraper was found at Baqura. It was made on a core and measures 54 mm. length and 39 mm. width. It has been irregularly retouched along the distal. Notched scrapers were found at Beidha (Mortensen 1970: fig. 29) and at Sha'ar ha-Golan (Stekelis 1950-51: fig. 10:14).

In following a table shows the tool types found at the site:

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | X | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 37. Baqura

TELL EL-ARBA'IN

Tell el-Arba'in is located in the center of the Jordan Valley, beyond the north side of the Wadi Ziqlab, and ca. 2.5 km. southwest of the village Waqqas. The site is a rather low mound, with extensive slopes. On the top of the tell is a cemetry, perhaps including some graves of the Byzantine period. Also some modern houses have been built on the tell.

The site was firstly surveyed by Nelson Glueck, who dated the pottery collected to the Early Bronze 1, Early Bronze,Iron 1-2 Hellenistic, Byzantine, and Medieval Arabic periods (Glueck 1951a:245).

Pottery

During the 1975 season of the Jordan Valley Survey, six sherds of Neolithic date were found at Tell el-Arba'in. They are illustrated in Plate 3. Two types of decoration occur: Pl. 3:1 has an incised herring-bone pattern, and is also painted with light red paint. The ware is coarse and pale brown. It is handmade and poorly fired.

Pl. 3:2-6 are decorated with bands of red paint. All of them show small mineral inclusions, except for Pl. 3:6, which is straw tempered and poorly fired.

The painted sherds from Tell el-Arba'in can be paralleled with the painted ware from Ghrubba, although the Ghrubba designs are different (Mellaart 1956: figs. 5,6). The same kind of painting is also found on material from Tuleilat Batashi, Stratum IVa. This stratum is equated with Jericho IX by the excavator (Kaplan 1958a: 83 "English Summary").

Megiddo Stratum XX, dated to the Late Neolithic 2 (PNB), produced the closest parallels with the painted material from Tell el-Arba'in (Loud 1948:Pls. 1,2).

The incised herring-bone pattern has been noted at many different sites in Jordan, and indeed in the entire Syro-Palestinian area. For instance, some sherds collected by Glueck at Tell el-Sa'idiyeh are similar to Pl. 3:1.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | X | | | |
| Side-scrapers | | | | | |
| Notched-knives | | X | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | X | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig.38 . Flint tool types from Tell el-Arba'in

Glueck dated these to the Early Chalcolithic, although he compared them with pieces from Jericho VIII/PNB and the Yarmukian Culture (Glueck 1951a:484).

This decoration has also been found in the Beth-Shan Pits, dating to the Late Neolithic 2 (PNB) (Fitzgerald 1935:6-8), as well as at Sha'ar ha-Golan (Stekelis 1950-51: Pl. i), Wadi Rabbah (Kaplan 1958b: fig. 4:3), and Munhatta Stratum 2 (Perrot 1964:328-329, 345; 1966: fig. 6:2).

In conclusion, the pottery sherds collected at Tell el-Arba'in can be dated to the Late Neolithic 2 (PNB) period Pl. 3:1) can also be related to the Yarmukian Culture.

Flint industry:

Four of the seven flint implements collected at Tell el-Arba'in are retouched pieces on flakes. Additionally a notched-scraper, a notched knife, and a borer were found.

1. Notched-scraper (Pl. 64:1): this piece has been irregularly retouched and made on a flake. The edges are straight and narrowed toward the bulb of precussion. The piece measures 68 mm. long and 38 mm. wide. This type of scrapers was also found at Beidha (Mortensen 1970:fig. 29) and Sha'ar ha-Golan (Stekelis 1950-51: fig. 10:14).
2. Notched-knife (Pl. 68:1): this was made on a flake with flat retouch along the edge. It has a triangular section. The opposite side is not steeply retouched as is usually done. This piece could also have been used as a borer. A pointed edge fromed by semi-steep retouch was used. The length is 92 mm. and the width 33 mm. Such notched-knives were found at Beidha (Mortensen 1970: fig. 32:a) and at Tell esh-Shuneh (de Contenson 1960a: fig. 15:11).
3. Borers (Pl. 77:5): one single borer was found at Tell el-Arba'in. It was made on a longitudinal flake. The ventral face has been trimmed by flat retouches. The point has been formed by semi-steep retouches on one

side and both the dorsal and ventral surfaces. Its length is 58.5 mm. and its width is 27 mm.. It has a triangular section. Similar borers were found at Tell esh-Shuneh (de Contenson 1960a: fig. 15:10) and Sha'ar ha-Golan (Stekelis 1950-51: fig. 8:7).

TELL FENDI

Tell Fendi lies on the southeastern side of the Wadi Ziqlab, between the Jordan River and the Jisr esh-Sheikh Hussein road. It is a low, extensive, flat topped tell, rising about 5 m. above the valley floor. No structures or installations are visible on the tell (Ibrahim, Sauer and Yassin 1976: fig. 9).

Pottery

In addition to the Neolithic-/Chalcolithic pottery sherds found on the tell a few Byzantine and Ayyubid/ Mamlukian sherds were also observed by the Jordan Velley Survey. N. Glueck, who had surveyed the site previously, mentioned that he also collected Chalcolithic, EB, and Hellenistic sherds. He argued that the site was originally settled in the Neolithic period (Glueck 1951a:246).

De Contenson, who has also published pottery and flint from the site, has almost dated all the finds to the Middle Chalcolithic period (de Contenson 1964:35, Pls. X, IX).

The pre-Bronze Age material collected consisted of the following forms:

1. Bowls (Pl. 4:2): this bowl has a band of red paint around the rim. It is handmade, and poorly fired. The paste is a pinkish-white coarse ware with small mineral inclusions and a dark core.

This kind of bowl was also found at many other sites in the Jordan Valley, e.g. at Tell esh-Shuneh I which de Contenson dates to the Middle Chalcolithic (de Contenson 1960a: 13), at Tell Abu Habil II, and at Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: 12-49; 1964: 35-45; Mellaart 1962) in the eastern part of the Jordan Valley, and Jericho VIII in the western part of the valley. Is was also found at Megiddo XX (Loud 1948a: 59-60). Based on these parallels, this type of bowl can be dated to the Late Neolithic 2 (PNB).

2. Cooking-pots (Pl. 4:1): based on similar sherds from this site which have already been published, this piece

may be part of a hole-mouth cooking-pot (de Contenson 1964:35, Pl. XI:7). The sherd is decorated with a band of red paint around the rim. It is handmade and has a coarse pink paste. Large mineral inclusions are visible. A similar piece from the site has been dated by de Contenson to the Early Chalcolithic period (de Contenson 1964:35; Pl. XI:7).

This form of cooking-pot was found at Jericho VIII, dated to the Late Neolithic 2 (PNB) (Ben-Dor 1936: Pl. XXXII: 34C), and at Tell esh-Shuneh I (de Contenson 1960a: fig. 4:6). Based on these parallels this kind of cooking-pot could be dated to the Late Neolithic 2 (PNB) period.

3. Jars (Pl. 4:3,4): Pl. 4:3 is part of a jar with an everted rim. It has been decorated with red paint. The ware is crude and pink in color. The core is dark, and very small pits are visible, indicating that it was poorly fired. Large black mineral inclusions are also noticable.

This form of jar was also found a Tell esh-Shuneh, and at Tell Abu Habil II. De Contenson has dated them to the last phase of the Chalcolithic period (de Contenson 1960a: 25,37).

Pl. 4:4 is an open ledge-handle. The ware is crude, handmade and punk and has been painted red. It was poorly fired, and a light gray core visible. Black, medium sized mineral inclusions. The only parallel for this kind of handle comes from Niveau 2A at Munhatta. This stratum is dated to the Late Neolithic 2 (PNB) period (Perrot 1964:345).

Four more red painted sherds were also collected at the site (Pl. 4:5-8), these are also similar to material from Megiddo XX, Tell esh-Shuneh Level I, and Tell Abu Habil Level I.

To sum up, based on their comparisons, the most acceptable date for this material falls in the Late Neolithic 2 (PNB) period.

No flint implements were collected at the site during the Jordan Valley Survey 1975.

KHIRBET MARQA'AH

Khirbet Marqa'ah is located on the eastern side of the main Jordan Valley road, about 1 km. north east of Zemaliyah village, and 1.3 km. south-southwest of 'Araq er-Rashdan.

Its position in the first range of the foothills on the eastern side of the Jordan Valley and on the north side of the small Wadi Abu Ziyad enabled the inhabitants to exploit a wide range of favorable ecological conditions.

Glueck surveyed the site and collected sherds which he dated to the Roman, Byzantine and Medieval Arabic periods (Glueck 1951a:248).

In 1975 the site was again visited by Ibrahim, Sauer and Yassin. They dated their pottery collection to the Neolithic/Chalcolithic, EB (?), MB, Iron II/Persian, Hellenistic, Early Roman, Late Roman, Late Byzantine, Umayyed, and Ayyubid-Ottoman periods. Flints were also picked up on the site (Ibrahim, Sauer and Yssin 1976: 49).

Pottery

Only two sherds could be dated to the Neolithic period. Pl. 5:1 is a flat-ring base from a handmade vessel. The ware is coarse with large mineral inclusions and pinkish white in color. This type of base first appears in Jericho IX (Ben-Dor 1936: Pl. XXX:18), and continues through the last phase of the Late Neolithic 2 period (Jericho VIII).

Parallels for these sherds were found at Tell esh-Shuneh I, a level dated by the excavator to the Middle Chalcolithic period (de Contenson 1960a:13), Tell Abu Habil II, dated to the Middle Chalcolithic B period (de Contenson 1960a:35,44), Tuleilat Batashi III, a level which contained Yarmukian and Chalcolithic material (Kaplan 1958a: 83 "English Summary"), and Megiddo XX dating to the Late Neolithic 2 period (Loud 1948a: 59-60).

Pl. 5:2 is part of a loop-handle. It is handmade. The ware is coarse with large mineral inclusions and pinkish-white in color. It was poorly fired and has a very dark core. Similar loop-handles have been found at Tell esh-Shuneh I (de Contenson 1960a: fig. 7:3).

To conclude, the most acceptable relative date that could be given to these sherds is the Late Neolithic 2 (PNB) period.

Flint industry

The flint implements collected at Khirbet Marqa'ah consisted of 35 tools made on cores, flakes and blades. These include the followings:

1. Irregular cores: only one core was found. This was irregularly formed by flaking from one striking platform. Part of the cortex was left on the surface. The greatest diameter of the piece is 50.5 mm..

2. Notched-scrapers (Pl. 64:4,5): two scrapers made on flakes were found. Nearly all sides have been notched with steep retouch. The pieces measures 42 mm. - 51 mm. length and 33 mm. - 39 mm. width. Similar notched-scrapers were found at Beidha, type DS (Mortensen 1970: 30, fig. 9:h), Sha'ar ha-Golan (Stekelis 1950-51: fig. 10:16), Tell esh-Shuneh (de Contenson 1960a: fig. 16:6), and Tell Abu Habil (de Contenson 1960a: fig. 27:3).

3. Knives: those are mostly made on flakes with a triangular or trapezoid section. They have flat retouch along one side. The back sides of the knives have steep retouch. Lengths range between 31 mm. - 56 mm., widths between 20 mm. - 29 mm..

4. Borers (Pl. 77:1): the only borer we have from Khirbet Marqa'ah was made on a large flake and may be called a "Pseudo-burin". It has a triangular section, and the bulb of percusion is not trimmed. The point has been prepared by semi-steep retouch along the converging edge at the distal end. It measures 94.5 mm. long and 29 mm. wide. Borers similar to this one were found at Beidha, Type B1 ((Mortensen 1970:26, fig. 20:c), and Tell Abu Habil (de Contenson 1960a: fig. 27:8).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | X | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | X | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | X | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | X | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig.39 . Flint tool types from Khirbet Marqa'ah

ABU 'URABI

Abu 'Urabi is located about 1/2 km. to the south of the village of Qle'at, and ca. 2 km. to the north of the village of Zemaliyeh. It is situated about 100 m. to the west of the main Jordan Valley road, overlooking the northern side of the Wadi Ziqlab (map).

The site was surveyed for the first time in 1975, by the Jordan Valley Survey. One Roman and some modern sherds, as well as a large quantity of flakes, blades and cores were collected at the site (Ibrahim, Sauer, and Yassin 1976:49).

Flint industry

This group of tools included 28 pieces considered to be dated to the Early Neolithic (PPNB) (Sauer 1980:5).

1. Blade-cores with two opposite striking platform (Pl. 55:2):

One example was found. It is trapezoidal in section. Both of the striking platforms were produced by the removal of core-tablet. The largest diameter is 48 mm..

2. Chisels: these are roughly triangular in shape, and are made on cores. The sides are slightly narrowed towards the edge. The polished edge has been re-sharpened by a transversal blow. Lengths measure between 65.6 mm. - 71 mm., and widths between 28 mm. - 33 mm..

3. Notched-knives: the notched-knives found at Abu 'Urabi are characterized by squamous retouches along the edges. They are made on flakes and measure between 42 mm. - 62 mm. length and 28 mm. - 38 mm. width.

4. Pointed tools: eleven pieces, mostly borers, belong to this category. In general, they are made on flakes and measure between 39 mm. - 61 mm. in length and 20 mm. - 50 mm. in width. The points are formed by steep retouches. Some of these tools were perhaps also used as scrapers.

5. Retouched pieces: four pieces were collected. They are made on flakes and blades, and probably were used

as sickle-blades. The lengths are 22.5 mm. - 32,5 mm., and widths 11 mm. - 18 mm..

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | X | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | X | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | X | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | X | | |
| Retouched pieces | | | | | |

Fig. 40. Abu 'Urabi flint implements

TELL ZAQQUM NORTH

Tell Zaqqum is located on the northern side of the Wadi Jurm, and west of the main Jordan Valley road, less than one km. northwest of the Tabaqat Fahil (Pella). It is situated between the edges of the mountain range and the Ghor.

The site was surveyed in 1975, at which time the surveyors divided it into three areas, North, Middle, and South. Pottery was collected in these areas and dated mainly to the following periods: EB, MBIIA, Hellenistic, Early Roman, Byzantine, and Ayyubid to Ottoman. Flints were also collected at the site.

Pottery

Three sherds were dated to the Neolithic/Chalcolithic period. Two sherds probably come from jars. Pl. 5:3 is part of the rim of a hole-mouth jar. It is handmade, pink in color, and quite coarse. It was fairly well fired, and has a light core, with medium sized grit temper. Similar jars have been found at Megiddo XX dated to the Late Neolithic 2 (PNB), and at Abu Habil III, dated to Middle Chalcolithic B (de Contenson 1960a:44). This form of jar is also common in the Early Bronze Age, however.

Pl. 5:4 is part of a rounded base, possibly a jar or a bowl. The ware is coarse, yellow in color, and handmade. This type of rounded base was found in Jericho IX (Late Neolithic 1) (Garstang 1936:67-76); Tuleilat Batashi IVa (Late Neolithic 1), III (Late Neolithic 2 and Chalcolithic) (Kaplan 1958a: Pls. 7:2, 3,6; 10:23), in the Late Neolithic 2 (PNB) levels at Megiddo (Loud 1948a:59-60); and at Tell es-Sa'idiyeh el-Tahta in the Middle Chalcolithic levels (de Contenson 1960a: 50).

Pl. 5:5 is part of a Gassulian cornet, one of the type-fossils of the Ghassulian Culture. Thus, it must date to the Chalcolithic period. The sherd is handmade,

has medium sized mineral inclusions, and is a coarse pink ware.

In conclusions, the sherds belong to two diferent periods. Pl. 5:3 and 4 can be dated to the Late Neolithic 2 (PNB) period, although rounded bases like Pl. 5:4 appeared in the Late Neolithic 1 (PNA) period, albeit in another type of ware. Pl. 5:5 must be dated to the Chalcolithic period.

Flint industry

The flint implements found at Tell Zaqqum North consisted of 23 pieces, most of them sickle-blades.

1. Irregular flake-cores (Pl. 54:7): The single example found at Tell Zaqqum North is a nodule of flint, irregularly formed by flaking from two opposite platforms. The surface is covered with scars from flaking in several directions. The largest diameter is 35 mm.

2. Flake-cores with one striking platform: only one example was collected. It is a large, longitudinal flake with scars on the surface where blades had been struck. It could be that this pieces is the result of an unsuccessful attempt to produce a blade. It measures 69 mm. in length and 34 mm. in width.

3. Notched-scrapers (Pl. 63:5): the only example was made on a blade (?) with a concave edge produced by semi-steep retouch at the distal end of the blade. It could also be called an end-scraper as Mortensen done (Mortensen 1970:30). Similar scrapers were found in Level I at Beidha (Mortensen 1970: fig. 30:h). The lenghth is 56 mm., and the width is 26 mm.

4. Sickle-blades (Pls. 72:2-4; 75:2; 76:4-6): these are end-retouched, and steep retouched on the back. they are trapezoidal in section, and may be made either on flakes or blades. The bulb of percusion is either broken away, as in Pl. 72:2, or chipped, as in Pl. 72:3-4. The cutting edge has been irregularly retouched.

Similar blades were found at Tell esh-Shuneh (de Contenson 1960a: fig. 16), Tell Abu Habil (de Contenson 1960a: figs. 27:5; 30:2), Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 36:8-14), and at Byblos (Cauvin 1968: fig. 50). The length range between 25 mm. - 42 mm., and the width between 10 mm. - 16 mm.. Information on the sickle-blades is contained in the following table:

| | Sickle-blades with gloss | Sickle-blades with end-retouch | Backed (partially) sickle-blades | Denticulated sickle-blades |
|---|---|---|---|---|
| Sickle-blades with gloss | | ● | ● | |
| Sickle-blade with end-retouched | ● | | ● | |
| Backed (partially) sickle-blades | ● | ● | | |
| Denticulated sickle-blades | | | | |

Fig. 41. Tell Zaqqum North sickle-blades.

5. Pointed tools (Pl. 79:4): two flint tools found at Tell Zaqqum North could be considered awls. They are triangular in shape, made on flakes, and have irregular retouch along the sides. The point was produced by semi-steep retouch on the distal end opposite the bulb of precussion Pointed flint implements comparable with those from Tell Zaqqum North were excavated at Tell esh-Shuneh (de Contenson 1960a) and Sha'ar ha-Golan (Stekelis 1950-51: Pl. xvii:9). The lengths range between 37 mm. - 40 mm., their widths between 21 mm. - 26.5 mm..

6. Retouched Pieces (Pls. 80:8; 81:7,8): most of them were made on flakes, although some were made on blades. They are either trapezoidal or triangular in section, and have retouch along the sides. Some are narrow at the distal end. The measurements are 31 mm. - 59 mm. length, and 11.5 mm - 38 mm. width. They may be comparable with those from Tell esh-Shuneh (de Contenson 1960a: fig. 15).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | X | | | | |
| Flake-core with one striking platform | X | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | X | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | X | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | X | | | |
| Retouched pieces | | X | | | |

Fig. 42 . Tell Zaqqum North flint tool types

TELL EL-MA'AJAJEH

Tell el-Ma'ajajeh is located ca. 1.5 km. southwest of Tell Abu en-Ni'aj (North and South), just over one km. to the northwest of Tell Shurahabil, ca. 1 km. to the northeast of Tell Abu Nijras, and ca. .5 km. to the east of the Jordan River, on the northern side of the Wadi el-Yabis (Ibrahim, Sauer, and Yassin 1976: fig. 1). The site is situated on a high hill at the very edge of the Ghor. A semicircular qattarah, located below it, leads to the small plain of the Zor.

Nelson Glueck, who first surveyed the site, mentioned that remains of stone foundations and walls were visible on the tell (Glueck 1951a:260). He dated the pottery to the Late Bronze II (?), Iron I-II, Roman and Byzantine periods.

The pottery collected in 1975 at the site has been dated to the Neolithic/Chalcolithic, Hellenistic, Early Roman, Late Roman, and Byzantine periods. Only seven sherds date to the Neolithic/Chalcolithic periods.

Pottery

1. Jars (Pl. 6:1-4): Pl. 6:1-2 are parts of flat jar bases. They are handmade of a coarse ware. Pl. 6:1 is very pale brown in color, badly fired, and shows surface crackings. It has a large mineral inclusions. Pl. 6:2 is pink, and is well fired. It has a red slip, and very small mineral inclusions. Based on parallels at Middle Chalcolithic Tell esh-Shuneh I (de Contenson 1960a: 12,31) and Yarmukian Sha'ar ha-Golan (Stekelis 1950-51: 19), this kind of base can be dated to the Late Neolithic 1 and 2.

Pl. 6:3-4 are fragments of loop-handles from jars. Both are handmade, well fired and have large mineral inclusions. The ware is coarse and pink, and is painted in red. Parallels for these loop-handles were found at Tell esh-Shuneh I (de Contenson 1960a: fig. 7:4,6) and in the Pits at Beth-Shan (Fitzgerald 1935:5-9). Both

contexts are dated to the Late Neolithic 2 (PNB) period.
2. Painted body sherds (Pl. 6:5-7): these are handmade, of a well fired coarse pink or white ware, small sized mineral inclusions, and are painted red.

Pl. 6:5 has a triangular red painted design. Pottery with this type of decoration was found at Ghrubba, which can be dated to the Late Neolithic 2 (Mellaart 1956:32), and in Stratum IVa at Tuleilat Batashi, which can be dated to the Late Neolithic 1 (PNB) (Kaplan 1958a:83 "English Summary"). Thus, most chronological indicators point to a date in the Late Neolithic period.

Flint industry

A single flake with used retouch along one side was found at Tell el-Ma'ajajeh (Pl. 80:3). It may be a notched knife. It is triangular in section, and measures 8 mm. in length and 4.5 mm. in width. Notched flakes were found at Sha'ar ha-Golan (Stekelis 1950-51: fig. 10).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | X | | | |

Fig.43. Tell el-Ma'ajajeh tool types

TELL ABU NIJRAS

Tell Abu Nijras is located about 100 m. to the south of the Wadi el-Yabis, about one km. east of the Jordan River, and one km. to the west of Tell Sherhabil. The site is situated at the very west edge of the Ghor, overlooking the beginning of the qattarah hills (Ibrahim, Sauer, and Yassin 1976: figs. 1,2). The Wadi el-Yabis and the Jordan River are the site's main water sources.

The site was surveyed in 1975 and material from the Neolithic/Chalcolithic, Early Bronze (?), Late Roman, Byzantine and Modern periods are found. Flint was also collected (Ibrahim, Sauer and Yassin 1976:49).

Pottery:

Two vessel forms were recognized among rather large collection of Neolithic pottery from Tell Abu Nijras.

1. Bowls (Pl. 7:1,2,9,13-18): three kinds of bowls were distinguished:

a. Red slipped bowls (Pl. 7:1,13): Pl. 7:1 has red slip on both exterior and interior. It is handmade, well fired and made of a coarse pink ware with large black and white mineral inclusions.

Pl. 7:13 is part of a small lug-handle. It has a light red slip, and is made of coarse pinke ware with small black inclusions. The handle was handmade and well fired.

Parallels for these red slipped bowls were uncovered at Jericho VIII dated to the Late Neolithic 2 (PNB) period (Kenyon 1957a:77-92; Garstang 1936:67-76; Droop 1935: Pl. XLV: 1,2,4,5), and Tell Abu Habil I, dated to the Middle Chalcolithic (de Contenson 1960a:35). Thus, the most accaptable date for this type of bowl is the Late Neolithic 2 (PNB) period.

b. Painted bowls (Pl. 7:2): This sherd is part of a bowl, with a simple rim and painted band of red on the rim. It also has a wash. The ware is fine, with large black and white inclusions. Bowls of this type have been found at Tell esh-Shuneh I, dated to the Chalcolithic

period (de Contenson 1960a: 13,20,35); Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 32:17) and in Cave 4067, Stratum XX at Megiddo dated to the Late Neolithic 2 (PNB) period (Loud 1948a:59-60). We suggest a date in the Late Neolithic 2 (PNB) period is the most acceptable for this material.

c. Lug-handled bowls (Pl. 7:9,13-19): these sherds are all handmade of a coarse pink ware, with mineral inclusions ranging between small and large sizes. All are well fired except Pl. 7:17. This kind of lug-handle first appeared in the Upper Neolithic levels at Jericho. It was found on bowls attached between the rim and the shoulder (Droop 1935: Pl. XLV: 1-6).

2. Jars (Pl. 7:3, 4,11): Pl. 7:3 and 4 come from jars with everted rim. Pl. 7:3 has a weak red slip. It is handmade, well fired and has large black and white inclusions. The ware is very crude and pink.

Pl. 7:4 was painted with a band of a light reddish brown paint. It is well fired and has large inclusions. The ware is coarse, very pale brown in color.

Similar jars were found at Tell esh-Shuneh I, Tell Abu Habil I and Megiddo XX. All are dated to the Late Neolithic 2.

Pl. 7:10-12 are loop-handles from jars. Pl. 7:12 has a weak red slip, and large mineral inclusions. Pl. 7:11 has a light core, and small sized inclusions. All are handmade and well fired except for Pl. 7:11.

Parallels for these loop-handles occur at Tell Abu Habil in levels dated to the Chalcolithic period (Glueck 1951:432), and at Megiddo XX (Loud 1948: Pl. 1:14).

3. Decorated body sherds (Pl. 7:5-8): two of our painted sherds (Pl. 7:5,6) have red paint, large mineral inclusions, and are made of very crude ware. They are all handmade and well fired, with the exception of Pl. 7:5, which has a dark core. Similar painted pottery was found at Jericho VIII, Tell esh-Shuneh I, Tell Abu Habil I, and Megiddo XX.

Pl. 7:7 and 8 have rope-moulding decoration. They are red slipped, handmade, well fired and contain large sized mineral inclusions. Rope-moulding also appeared at the above-mentioned sites, red painted wares occuring in the same levels as those which produced the red painted wares.

To sum up, the pottery from Tell Abu Nijras should be dated to the Late Neolithic 2 (PNB) period.

Flint industry

The flint implements found at Tell Abu Nijras consist of one chisel and ten sickle-blades.

1. Chisels (Pl. 63:1): the only piece we have from this site has slightly curved sides, narrowing towards the edge and the butt. The dorsal and ventral faces are prepared by squamous flaking from the sides. The edges are produced by bifacial retouch. The piece measures 114 mm. length and 25 mm. width. Similar chisels occured at Beidha (Mortensen 1970: fig. 47), and Tell esh-Shuneh (de Contenson 1960a: fig. 15:2).

2. Sickle-blades (Pls. 71:3,5,6; 72:1; 73:2): sickle-blades collected at this site are characterized by sheen on the cutting edges (Pls. 71:3,5,6; 72:1). End-retouched (Pls. 71:3,5,6; 72:2), steep retouched back (Pls. 71:3,5; 73:2), and denticulated (Pl. 71:5) examples were found. They are all trapezoidal in section. Length ranges between 35 mm. - 30 mm., and width 16 mm. - 13 mm.. Similar sickle-blades were found at Tell esh-Shuneh, Tell Abu Habil and Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: figs. 16; 27:5; 30:2; 36:8-14), and at Byblos (Cauvin 1968: fig. 50). Below is a table showing the combinations of the sickle-blades features.

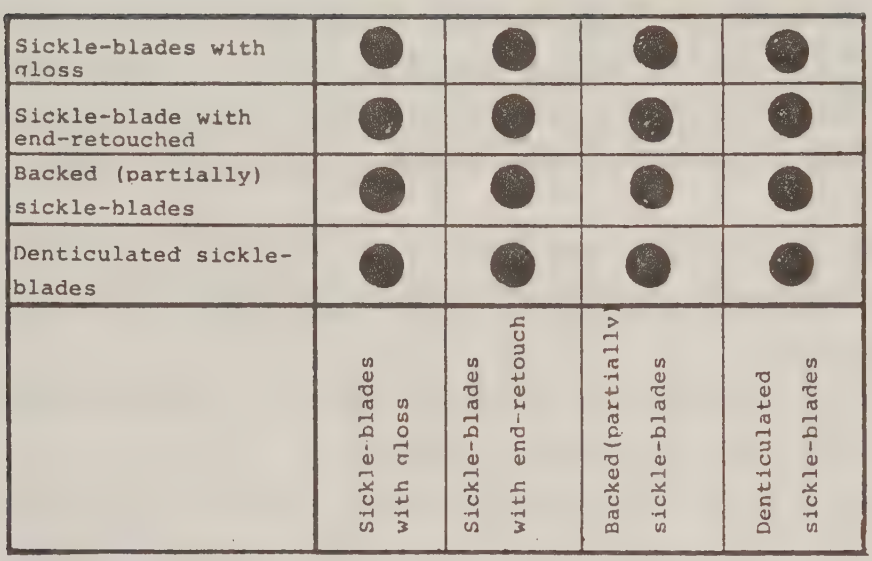


Fig. 44. Tell Abu Nijras sickle-blades.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | X | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | X | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 45. Tell Abu Nijras flint implement types

TELL ABU HABIL

Tell Abu Habil is located ca. 3 km. south-southwest of Tell Sherahbil, almost opposite Tell Abu Sus, south of the Wadi el-Yabis. This site is a low mound, ca. 100 m. west of the main Jordan Valley road (Ibrahim, Sauer and Yassin 1976: fig. 2). All the central part of the mound is currently under cultivation. The Jordan Valley in this particular region is narrow. Wadi el-Maqsam runs by the site on the south side. A small spring 'Ain Abu Habil, is located to the northeast of the site.

The modern north-south dirt road divides the tell into two parts, Tell Abu Habil North (Site No. 65) and Tell Abu Habil South (Site No. 66) (Ibrahim, Sauer and Yassin 1976:49; Glueck 1951a: 275-276).

The site was originally visited by Glueck, and later tested in 1953 by Mellaart and de Contenson (de Contenson 1960a: 31-49).

Pottery

Considering the variety of forms present in the material from Tell Abu Habil South, it is one of our best collections. We shall now discuss this material.

1. Spoons (Pl. 9:1): this is the only spoon found in our survey. It is handmade and well fired, with large mineral inclusions. The ware is coarse, thick and pinkish-white in color. Other spoons of this sort have been published from Ghrubba (Mellaart 1956: fig. 4:54, 55), Tell el-Fara'ah (de Vaux 1948: fig. 1:4) and Tulei-lat el-Ghassul (Mallon, Koeppel and Neuville 1934: Pl. 44: 55-58, 64) and can be dated to the Late Neolithic 2.

2. Bowls (Pls. 9:2-4; 10:18; 11:20,21,23): two forms of bowls were recognized:

a. Deep bowls (Pl. 9:2-3): both sherds are handmade and of a coarse pale brown ware with small mineral inclusions. Pl. 9:2 has a reddish brown slip on both exterior and interior, as well as traces of wash on the exterior. This kind of bowl is known at Tell esh-Shuneh I, a Middle Chalcolithic level (de Contenson 1960a:13);

Tell esh-Sa'idiyeh el-Tahta in a Middle Chalcolithic B level (de Contenson 1960a:56); Megiddo XX, dated to the Late Neolithic 2 (PNB) (Loud 1948a:59-60) and Sha'ar ha-Golan (Stekelis 1950-51: fig. 13:4,10).

Pl. 9:3 was fairely well fired. It shows tiny pits on the surface, large basaltic mineral inclusions in the paste, and is pink in color. This type of bowl has been found in Level II of Contenson's sounding here, dated to Early-Middle Chalcolithic (de Contenson 1960a:35); Tell esh-Shuneh I (de Contenson 1960a: fig. 3:6,8); Sha'ar ha-Golan (Stekelis 1950-51: fig. 13:9,10); Wadi Rabbah, in the Yarmukian level (Kaplan 1958b: figs. 4:5, 5:10), and at Tell el-Far'ah, in the Enéolithique Moyen level (de Vaux 1961: fig. 1:29).

These two bowls may be dated therefore to a period ranging between the Late Neolithic 1 and the Early Chalcolithic period.

b. Painted bowls (Pl. 9:4): this sherd was painted with red paint on the interior only. It has been well fired, is handmade, and has large basaltic inclusions, and is pink in color.

Parallels for this simple rim bowl sherd (Pl. 9:4) occur in Jericho VIII (Garstang 1936:67-76) and Megiddo XX (Loud 1948: Pl. 2:33). This confirms that this kind of bowl should be dated to the Late Neolithic 2 (PNB) period.

All of the bowls from Tell Abu Habil just discussed usually have flat bases. This type of flat base occurs in Niveau 2 at Munhatta, dating to the Late Neolithic (Perrot 1966: fig. 6:14).

Neolithic bowls sometimes have lug-handles. This kind of bowl was firstly found at Jericho in Level IX and continued through Level VIII at the same site.

Pl. 11:20,21 and 23 are handmade lug-handle made of a coarse pink ware. All have red painted decoration and generally large mineral inclusions. Lug-handled bowls occur in Munhatta 2 (Perrot 1966: fig. 6:14),

and in the Pits at Beth-Shan (Fitzgerald 1935: 6-8). Both loci date to the Late Neolithic 2 (PNB) period.

3. Jars (Pls. 9:5-9; 10:14-17; 11:22, 24-26): fragments of two jar types were recovered:

a. Everted neck jars (Pl. 9:5-8; 10:14-15): all are handmade and pink in color. Pl. 9:5 and 8 are made of thin, fine ware, whereas Pl. 9:6-7; 10:14 and 15 are coarse. They are all fairly well fired. Pl. 9:5, 6, and 8 bear traces of wash. Pls. 9:6, 8; 10:14 and 15 show a red slip. Parallels for such everted rim jars occur in Jericho VIII (Ben-Dor 1936: Pl. XXXII:23A); Ghrubba (Mellaart 1956: fig. 4:44); Tell esh-Shuneh (de Contenson 1960a: figs. 3:12; 4:2), Tell Abu Habil I (de Contenson 1960a: figs. 23:10; 26:12); Beth-Shan XVIII (Fitzgerald 1935: Pl. I:19); and at Tell el-Far'ah (de Vaux 1961: fig. 1:24). Thus, this type of jar can be dated to the Late Neolithic 2 (PNB) period.

b. Hole-mouth painted jars (Pl. 9:9): fragments of painted hole-mouth jars (Pl. 9:9), jar bases (Pl. 10:16,17,19), loop-handles (Pl. 11:22,24-26), and body sherds with rope-mouldings (Pl. 12:27,28,30,31), nail incisions (Pl. 12:29,32), simple painted decoration (Pl. 12:33-34) occur in our collection. Similar material encountered in de Contenson's sounding at the site (de Contenson 1960a: fig. 25:10), in levels dated to the Middle Chalcolithic B period.

Bases similar to ours have been found at Tell esh-Shuneh (de Contenson 1960a: fig. 8:9); Munhatta (Perrot 1964: fig. 3:1); Wadi Rabbah (Kaplan 1958b: fig. 5:10); and at Megiddo (Loud 1948: Pl. 2:18).

Rope moulding and nail incision occurs on jars from Tell Abu Habil I-III, Tell es-Sa'idiyeh el-Tahata, Tell esh-Shuneh (de Contenson 1960a: figs. 4:13; 25: 9,20; 34:10,11); Beth-Shan XVIII (Fitzgerald 193: Pl. I:24-26); and at Murabba'at (de Vaux 1953: fig. 1:9, 10,11,13,14).

4. Kraters (Pl. 10:10-13): all are handmade of a coarse pink ware with large inclusions. They have triangular rims. Pl. 10:10-12 have red slip, while Pl. 10:13 is decorated with nail incision on the rim. Parallels for these kraters occur in the sounding at Tell Abu Habil (Glueck 1951: Pl. 122:2); Tuleilat Batashi III (Kaplan 1958a: Pl. 10:4); Megiddo XX (Loud 1948: Pl. 2:13); and Tell el-Far'ah in the Enéolithique Moyen levels (de Vaux 1947: fig. 1:3).

In conclusions, pottery from Tell Abu Habil may be dated largely to the Late Neolithic 2 (PNB) period, perhaps extending also into the Chalcolithic period.

Flint industry

Three flint implements were collected at Tell Abu Habil South. They belong to two different types:

1. Pointed tools (Pl. 79:3): one leaf shaped flake with a point formed by steep retouch was found. Irregular retouch is visible along the sides: The measurements are: 53 mm. length and 30 mm. width. Similar implements were found at Beidha (Mortensen 1970: fig. 20:c); Tuleilat el-Ghassul (Mallon, Koeppel, and Neuville 1934: Pl. 32:11; Koeppel et al. 1940: Pl. 107:3); and at Byblos in the Néolithique récent levels (Cauvin 1968: fig. 65:9).

2. Retouched pieces (Pl. 81:2): two pieces made on flakes with irregular retouch along the sides were also found. They measured 42 mm. - 55 mm. in length and 20 mm. - 36 mm. in width.

At Tell Abu Habil North the flint assemblage consisted of 21 pieces belonging to three types:

1. Blade-cores with one striking platform (Pl. 54:2): one piece was found. The platform was produced by the removal of flakes. The surface is covered with scars from flaking in different directions. The largest diameter is 37 mm.

2. Scrapers: two types of scrapers were distinguished:

a. Notched-scrapers (Pl. 63:4): one example made on a flake with trapezoidal section and irregular retouch along the edges was found. It was notched on one side. Length is 66 mm. and the width is 34 mm. Comparable flint tools were found at Tell esh-Shuneh (de Contenson 1960a: fig. 15:11), and notched flakes were found at Sha'ar ha-Golan (Stekelis 1950-51: fig. 10).

b. Side-scrapers (Pl. 67:2): these may also be called end-scrapers. They were made on irregular falkes, with one side concave, and the other side forming a more or less continous scraping edge. Lengths are 40 mm. - 63 mm., and widths 39 mm. - 57 mm.. Similar scrapers were noticed at Tell Abu Habil (de Contenson 1960a:5), and Beidha (Mortensen 1970: fig. 29:c).

3. Retouched pieces (Pl. 81:3,4): retouched tools on flakes are nearly triangular in section, and show irregular retouch along the sides. One of these tools (Pl. 81:3) may have been used as a knife. Length ranges between 38 mm. - 49 mm., and width between 23 mm. - 34 mm.. Below tables show the tool types distribution at Tell Abu Habil North and South.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | X | | | |
| Retouched pieces | | X | X | | |

Fig. 46. Flint tool types found at Tell Abu Habil South.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | x | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | x | | | |
| Side-scrapers | | x | | | |
| Notched-knives | | | | | |
| Knives | | | ? | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | x | | | |

Fig. 47 . Tell Abu Habil North flint tool types

MERRAZZEH

Merrazzeh is about 1/2 km. north of the Wadi el-Yabis, and 1/2 northeast of the village of Merrazzeh. It is situated less than 1 km. east of the main road of the Jordan Valley, at the beginning of the foothills on the eastern side of the Ghor.

The site was discovered in 1975 by the Jordan Valley group. Only flint tools were collected at the site, no pottery having been found (Ibrahim, Sauer and Yassin 1976: 49). Six types were distinguished within the flint assemblage:

1. Irregular flake-cores: these are irregularly formed by flaking from one or two platforms. One example, possibly only a core-fragment, may have been used as a sling-stone, for it shows flaking angles which are unusual within the flint industry of this size. The largest diameter is 68 mm.

2. Notched-knives (Pl. 68:2): these were made on flakes with a triangular section and show use-retouch along the sides and edge. The only piece we have has been notched on the back, and measures 66 mm. length and 39 mm. width. Similar notched-knives were excavated in level II at Beidha (Mortensen 1970: fig. 32:a).

4. Borers (Pl. 78:1): one example found is a trapezoidal in section, and was made on a flake with irregular retouch along the sides. The point was prepared by steep retouch. The length measures 71 mm. and the width 31 mm.. Parallel borers were found at Beidha (Mortensen 1970: fig. 22:d).

5. Pointed tools (Pl. 79:5): one example was found, made of a blade with a trapezoidal section and a triangular shape. It can also be called an awl or point. It shows irregular retouch along the sides. The measurements are 43 mm. in length, and 12.5 mm. in width. Similar pointed tools were found in the Néolithique récent levels at Byblos (Cauvin 1968: fig. 65:9).

6. Retouched pieces (Pl. 80:1,4): they are made on flakes with trapezoidal section. They show irregular retouch along the sides, similar to the retouch on a scraper. The length ranges between 43 mm. - 71 mm., and the width 25 mm. - 37 mm.. Below we present a table showing the flint tool types distribution found at the site:

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | X | | | |
| Notched-knives | | X | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | X | | | |
| Burins | | | | | |
| Pointed tools | | | X | | |
| Retouched pieces | | X | X | | |

Fig. 48. Merrazzeh flint implement types

ED-DEBAB

Ed-Debab is located between the Wadi el-'Arab and the Wadi Ziqlab. It is northwest of the village of Waqqas, southeast of the village of Manshiya, ca. 2 km. to the west of the main Jordan Valley road, and ca. 1 km. to the east of the Jordan River (Ibrahim, Sauer and Yassin 1976: fig. 1).

Pottery:

The sherds collected on the tell were dated to the Neolithic/Chalcolithic, Early Bronze, Early Bronze-Middle Bronze, and Byzantine periods. Only 14 pieces were dated to the Neolithic/Chalcolithic period (Ibrahim, Sauer and Yassin 1976:50). Three forms were recognized among them.

1. Bowls (Pl. 13: 1,3-5): one inverted, thickened rim, with a red slip (Pl. 13:1), and three lug-handles (Pl. 13:3-5), two which show decoration in red paint (Pl. 13:3-4) are fragments of bowls. Pl. 13:1 is handmade, well fired, coarse, and made of a pink ware with small black mineral inclusions. Rims similar to it were found at Tuleilat Batashi in Stratum III (Kaplan 1958a:9-24 "Hebrew", 83 "English Summary"), and in Stratum XVIII at Beth-Shan (Fitzgerald 1935:6-9) in the western part of the Jordan Valley. Both strata were dated to the Late Neolithic 2 (PNB).

Pl. 13:3-5 are all handmade and well fired. The ware is coarse. Pl. 13:3 and 4 have small mineral inclusions, while Pl. 13:5 has large inclusions. Similar material has been found in the Upper Neolithic levels at Jericho, Level VIII (Droop 1935:171; Pl. XLV: 1-6), and Tell el-Far'ah in the Enéolithique Moyen levels (de Vaux 1947: fig. 1:13,14). The date of these bowls thus seems to be the Late Neolithic 2 (PNB) period.

2. Cooking-pots (Pl. 13:2): only one fragment of a cooking-pot was found. The sherd is handmade, well fired and is made of a coarse pink ware with small inclusions. It is decorated with herring-bone incisions below the rim. This kind of incised decoration is known from Sha'ar

ha-Golan (Stekelis 1950-51: Pl.i), Jericho VIII (Ben-Dor 1936: Pl. XXXIII:16), Wadi Rabbah (Kaplan 1958b: fig. 4:3), Munhatta (Perrot 1964: XXXIV:3), and many other sites. Thus, the sherd should be contemporary with the Yarmukian Culture.

3. Jars (Pls. 13:6, 14:7-8): these are loop-handles, probably from large jars. All are handmade, of a very coarse ware, and are well fired. Pl. 13:6 has large mineral inclusions, while Pl. 14:7 and 8 have medium sized inclusions. Parallels for Pl. 13:6 occur in Tell Abu Habil II dated to the Middle Chalcolithic period (de Contenson 1960a: 35,37); Wadi Rabbah in the Ghassulisn Phase (Kaplan 1958b: fig. 4:12); and in Meggido XX (Loud 1948a:59-60). Parallels for Pl. 14:7 and 8 occur in the Middle Chalcolithic Tell esh-Shuneh I (de Contenson 1960a: 13,20); Tell Abu Habil (de Contenson 1960a: fig. 23:12); and in Jericho VIII (Ben-Dor 1936: Pl. XXXII:27). Thus Pl. 14:7-8 can be dated to the Late Neolithic 2 (PNB) period, while Pl. 13:6 should be dated to the Early Chalcolithic period.

In addition to this material, we should mention several other pieces. Pl. 15:9 has a red slip, and rope-moulding. It has been wet-smoothed. This type of decoration is found at many sites belonging either to the Late Neolithic 2 (PNB) period, Chalcolithic, or the Early Bronze Age.

Pl. 15:10-14 are red-painted body sherds. They are handmade of a coarse pink ware. They are all well-fired, with the exception of Pl. 15:12, which has a dark core. They show either medium or large mineral inclusions. Straw temper was observed in Pl. 15:14.

Similar painted pottery has been found at many sites, e.g. Megiddo XX (Loud 1948: Pl. 2:35).

To conclude, the sherds from ed-Debab belong to the Late Neolithic 1 (Yarmukian) (Pl. 13:2), and the Late Neolithic 2 (PNB) period (Pls. 13:3-5; 14:7,8; 15:9-14).

Flint industry

The collection from ed-Debab consists of five blades, one sickle-blade, three scrapers and one knife.

1. Blades: the blades are made on flakes and range in size from 36 mm. - 69 mm. in length, and 22 mm. to 33 mm. in width.

2. Knives (Pl. 69:3): the only knife found was made on a flake with a broken base. It has retouch along the edges, and measures 49 mm. in length and 22.5 mm. in width. It is light brown in color. This piece may also have been used as a "pseudo-burin".

3. Sickle-blades: a single sickle-blade was recovered. It measures 21.5 mm in length and 18 mm. in width. It is made of a light brown flint.

4. Scrapers: three side-scrapers were recovered. They were made on flakes, and they range in size from 32 mm. - 60 mm. in length and 23 mm. to 38 mm. in width. A table showing the tool types distribution is presented below:

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | ? | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 49 . Flint tool types found at ed-Dеbab

MAQBARET ES-SLEIKHAT

Maqbaret es-Sleikhat was first surveyed in 1975. It is located to the northwest at Khirbet es-Sleikhat and to the east of the main Jordan Valley road. Neolithic/Chalcolithic, Early Bronze, Early Bronze-Middle Bronze, Possible Middle Bronze IIA, Possible Late Bronze, some Byzantine, Ayyubid/Mamlukian, Possible Ottoman, some modern, and unidentifiable sherds were collected at the site (Ibrahim, Sauer and Yassin 1976:5c). A single Neolithic/Chalcolithic body pottery sherd was collected here, but no more details can be given. Following is a study of the flint tools collected.

Flint industry:

Two types were recognized within the flint implements assemblage found at Maqbaret es-Sleikhat:

1. Celts with polished edge (Pl. 56:3): one example was found. It is ovoid or roughly triangular in shape, with bifacial retouch. It was made on a core, and the sides slope towards the butt. The edge is convex. The piece measures 69 mm. in length and 29 mm. in width. Celts with polished edge were found at Beidha (Mortensen 1970: fig. 49), Sha'ar ha-Golan (Stekelis 1950-51: fig. 2), and at Byblos in the Néolithique récent levels (Cauvin 1968: fig. 55).

2. Sickle-blades (Pls. 74:4; 75:6): these were made on blades, and are rectangular in shape. They have sheen along the cutting edge. They show end-retouch and steep retouch on the back, and one (Pl. 75:6) is denticulated. In cases the sheen is visible on both the dorsal and ventral sides. They range from 37 mm. to 48 mm. in length, and 13 mm. to 13.5 mm. in width. Similar sickle-blades were excavated at Tuleilat el-Ghassul (Koeppel 1940: Pl. 110:4), Tell esh-Shuneh (de Contenson 1960a: figs. 15:7; 16:12) and Tell Abu Habil (de Contenson 1960a: fig. 30:2).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | X | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | X | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 50. Maqbaret es-Sleikhat flint tool types

TELL ABU HAMID

Tell Abu Hamid is located north of the Wadi Kufrinja, and south of the Wadi el-Yabis. It is ca. 1 km. north of 'Araq Abu ez-Zeit, ca. 3 km. north of the village of Subeira, and ca. 5 km. southwest of the village of Sleikhat. It is west of the main Jordan Valley road, and less than 1 km. east of the Jordan River. The tell is a low rise in the Ghor, situated on a small wadi surrounded by cultivated fields (Ibrahim, Sauer and Yassin 1976: figs. 1,2,10).

The site was discovered in 1975; material belonging to the Neolithic/Chalcolithic, Middle Bronze, Late Bronze, Early Roman, and Byzantine periods was collected.

Pottery:

The Neolithic/Chalcolithic sherds from the site represent perhaps the best collection from the entire survey, both in quality and quantity.

Three vessels forms occur in the collection:

1. Bowls (Pls. 16:1-5, 7-9; 21:26-31; 22:32-34): these are all handmade, mostly well fired and made of a coarse ware. Two types were distinguished:

a. Painted bowls (Pl. 16:1,2): two rims have bands of weak red paint on both their interior and exterior faces. The ware is pink in color, and contains medium and large sized mineral inclusions. Parallels for this type of bowls were found in the Middle Chalcolithic Tell esh-Shuneh I (de Contenson 1960a: 13,20), and Megiddo XX (Loud 1948a:59-60). Both are comparable to Jericho VIII, which is dated to the Late Neolithic 2 (PNB) period (Kenyon 1957a:77-92).

B: Large deep bowls (Pl. 16:3-5, 7-9): these are made of a coarse, pink ware, with large mineral inclusions. Pl. 16:3 shows traces of finger prints on the surface. Pl. 16:4 has traces of a wash. Pl. 16:3-5 and 9 probably come from bowls with a rounded shape, while Pl. 16:7,8 come from straight sides bowls. Parallels for this material occur in the Middle Chalcolithic levels

at Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 32:8); Tell Abu Habil I (de Contenson 1960a: fig. 25:8); Megiddo XX (Loud 1948: Pl. 2:11); Tell esh-Shuneh I-II (de Contenson 1960a: figs. 3:9,20; 9:6); and at Munhatta (Perrot 1966: fig. 6:13).

Pls. 21:26-31 and 22:32-34 are lug handles from bowls. Some have red paint (Pl. 21:27,31); red slip (Pl. 22:32) or a wash (Pl. 22:33). The ware is coarse, with mineral inclusions of various sizes. The color of these handles ranges from pink (Pls. 21:27,29; 22:34), to pinkish white (Pl. 21:30), light gray (Pl. 22:32), very dusky red (Pl. 21:28), and light red (Pls. 21:26,31); 22:33).

Bowls with similar handles have been found in Jericho VIII (Droop 1935: Pl. XLV:2), Munhatta 2 (Perrot 1966: fig. 6:3); Beth-Shan Pits (Fitzgerald 1935: Pl. II:26); and Tell el-Far'ah Enéolithique Moyen (de Vaux 1947: fig. 1:15).

In conclusion, the bowls just discussed be dated to the Late Neolithic 2 (PNB) period.

2. Jars (Pls. 16:6; 17:10-14; 20:20-25; 22:35-36; 23: 37-38; 24:39-43): all of our jar sherds were handmade, Pl. 16:6 has finger prints on the surface, while Pl. 17:14 comes from a coiled vessel. Two jar froms occur.

a. Long neck jars (Pl. 16:6): one only example is made of a very coarse pink ware with large grit inclusions. It is poorly fired, and has a light core. This type of jar is only known in Jericho IX (Ben-Dor 1936: Pl. XXIX:13), dated to the Late Neolithic 1 (PNA) period (Kenyon 1957a:77-92).

b. Hole-mouth jars (Pl. 17:10-14): all are made of a coarse, thin ware, with mineral inclusions ranging from small to large. They are well fired, with the exception of Pl. 17:12 which shows signs of surface cracking. Similar hole-mouth jars occur in Jericho VIII (Droop 1935: Pl. XL:29,30), Ghrubba (Mellaart 1956: fig. 4:23), Munhatta 2 (Perrot 1964: fig. 3:14), Megiddo

XX (Loud 1948: Pl. 1:17), and Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 32:2). All are dated to the Late Neolithic 2 (PNB) period.

Pl. 20:20-25 are jar bases, both flat and rounded. Pl. 20:24 and 25 have mat-impression. Pl. 25:24 has a red slip. Similar bases have been found at many sites in Late Neolithic and Chalcolithic levels.

Pl. 20:23 has a red slip, large mineral inclusions, dark core and surface crackings. It is made of a coarse pink ware. It may be either a bowl base (cf. de Contenson 1960a: fig. 32:19) or a jar base (cf. Loud 1948: Pl. 1:14,15,24; Kaplan 1958a: Pl. 10:23).

Pls. 22-24 illustrated loop-handles. All are handmade, of a very coarse pink or pinkish white ware, and are poorly fired. Pl. 23:38 and Pl. 24:41 are red slipped, and Pl. 24:39 has a wash.

This type of loop-handles is found in Tell esh-Shuneh I (de Contenson 1960a: fig. 7:2), Tell Abu Habil (de Contenson 1960a: fig. 25:16), Tell el-Far'ah Enéolithique Moyen (de Vaux 1947: fig. 1:17), Munhatta 2 (Perrot 1966: fig. 6:9), and Beth-Shan Fits (Fitzgerald 1935: Pl. II:22). All of these levels date to the Late Neolithic 2 (PNB) period.

3. Kraters (Pls. 17:15; 18; 19): these storage jar fragments show decoration in the form of rope-moulding (Pls. 17:15); 18:17), nail incising (Pl. 18:16,18; 19:19,19a), and painting (Pl. 18:16). All are handmade, and poorly fired. Pl. 18:16 has a light core, while Pl. 18:18 shows surface crackings. The ware is a heavy, coarse pink ware, with large basaltic mineral inclusions, and the rim is normally triangular.

Similar kraters have been found at Beth-Shan XVIII (Fitzgerald 1935: Pl. I:20,30), Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 33:12) and Tell Abu Habil (Glueck 1951: Pl. 122:5). Based on these parallels, this type of krater may be dated to the Late Neolithic 2 and Chalcolithic periods.

4. Decorated body sherds (Pls. 25-26): here we illustrate two different kinds of decorations:

a. Painted ware (Pl. 25:44-50): these sherds are painted red with, either a band around the rim (on bowls) or as multiple bands around the body. Sherds with band painting on the body are known at Ghrubba (Mellaart 1956: fig. 5:61,63), and Megiddo XX (Loud 1948: Pl. 2:35), while red painted rims have been found at Tell esh-Shuneh I (de Contenson 1960a: fig. 3:20), Tell Abu Habil I (de Contenson 1960a: fig. 26:1,7), Munhatta (Perrot 1964: fig. 3:4,6) and Megiddo XX (Loud 1948: Pl. 2:4).

b. Rope-moulded ware (Pl. 26:51-53): here the ware is coarse and thick, with large basaltic mineral inclusions. The paste is either pale red (Nos. 51,53) or pink (No. 52). This kind of rope-moulding first occurs at Jericho in Level VIII and continues in use there into the Early Bronze Age (Droop 1935: Pl. XXXII).

To conclude, the sherds from Tell Abu Hamid can best be related to the Late Neolithic 2, although decorative elements known in the Chalcolithic period also occur. In form, however, none of this material can be considered typically Ghassulian.

Flint industry:

The flint collection from Tell Abu Hamid is considered the richest collected during the entire survey. It consists of 52 pieces representing 8 types.

1. Celts: two types of celts were distinguished:

a. Celts without polished edge: the piece we have has been bifacially retouched by squamous flaking from the sides. It was made on a bifacial, and has curved sides sloping towards the edge and the butt. The edge has been re-sharpened by a single transverse blow. It measures 68.5 mm. in length and 28.5 mm. in width.

b. Celts with polished edge (Pl. 57:1): one piece belongs to this type. It is roughly ovoid in shape. The sides are curved, towards the polished edge and the

butt. This celt was made on a flake, and measures 80 mm. in length and 37 mm. in width. Similar celts were excavated at Sha'ar ha-Golan (Stekelis 1950-51: fig. 2), and Tuleilat el-Ghassul (Koeppel 1940: Pl. 101).

2. Adzes: two different types of adzes can be distinguished:

a. Adzes without polished edge (Pls. 58:1-3; 59:2-3; 60:2): these were made either on flakes (Pls. 58:1; 62:2) or on bifacials (Pls. 58:2,3; 59:2,3). They are either ovoid or roughly triangular in shape. The sides are curved, narrowing towards the butt. Part of the cortex can be seen on some of the examples. The edges are convex. These edges were normally bifacially retouched with squamous flaking on the sides. Their lengths range between 59 mm. and 118 mm. and their widths between 24 mm. and 48 mm.. Similar adzes were found at Tuleilat el-Ghassul (Koeppel 1940: Pl. 98:4) and Tell Abu Habil (de Contenson 1960a: fig. 27:6).

b. Adzes with polished edge (Pl. 61:2-4): three pieces belonging to this type were found. They were made on bifacials and measure 83 mm. - 96.5 mm. in length, and 30 mm. - 33.5 mm. in width. Adzes comparable with this type were encountered at Tell Abu Habil (de Contenson 1960a: fig. 29:2), Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 35:2), and Tuleilat el-Ghassul (Koeppel 1940: Pl. 98:1).

3. Hammerstones (Pl. 62:1): only one piece was identified as a hammerstone. It is roughly rectangular in shape. Its edges are covered with battering scars. Part of the cortex is left on the surface. Its length is 111.5 mm., and its width is 45 mm..

4. Scrapers: three types of scrapers were identified:

a. Notched-scrapers: the only notched-scraper collected was made on a flake, with steep retouch along the notched edges. It is roughly in shape, and part of the cortex is left on the dorsal side. Its largest diameter is 81.5 mm..

b. Side-scraper (Pl. 66:3): the one example found was made on a flake. Its edges are straight and have been trimmed by steep retouch. The base is convex and retouched. The ventral side has been retouched by squamous flaking. Part of the cortex is left on the dorsal side. The piece measures 66 mm. in length and 35 mm. in width. Similar scrapers were found at Beidha (Mortensen 1970: fig. 30:h).

c. Fan-scrapers (Pl. 69:1-2): two fan-scrapers were recognized, one of them made on a blade (Pl. 69:2), and the other made on a flake (Pl. 69:1). This type of scraper is typically Ghassulian. Thus, these from Abu Hamid should belong to this culture and not to the Neolithic. They may have been used as knives, due to the fact that they are bifacially retouched (Pl. 69:2). The largest diameter is 62 mm.. Similar scrapers were found at Tuleilat el-Ghassul (Koeppel 1940: Pls. 104:4; 105:4) and at Tell Abu Habil (de Contenson 1960a: fig. 30:4-5).

5. Notched-knives (Pl. 68:3-4): two notched-knives made on flakes, with trapezoid section, were found. The cutting edges show flat retouch, while the back shows steep retouch. They range in length from 62 mm. to 72 mm., and in width from 32.5 mm. to 34 mm.. This type of knife was also found at Tell esh-Shuneh (de Contenson 1960a: figs. 15:10,11; 16:4).

6. Sickle-blades (Pls. 71:2; 73:4; 75:1,4,5): six sickle-blades made on blades were collected. They were irregularly retouched. Thus some show end-retouch, while in other cases the back of the blade has been steeply retouched. They usually have sickle sheen on the cutting edge. They range in length from 33 mm. to 50 mm. and in width from 13 mm. to 19 mm.. Similar sickle-blades were found at Tell esh-Shuneh (de Contenson 1960a: fig. 15:7), Tell Abu Habil (de Contenson 1960a: fig. 27:5) and at Tuleilat el-Ghassul (Koeppel 1940: Pl. 110:1,9). Below is a table showing combinations of sickle-blade features:

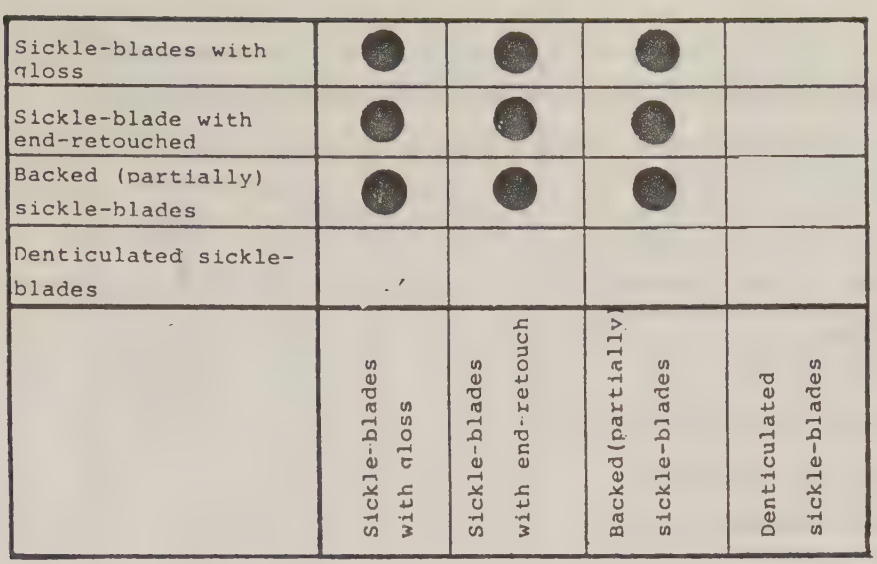


Fig. 51. Tell Abu Hamid sickle-blades

7. Borers (Pls. 77:2-4; 78:3): four flint implements made on flakes (Pls. 77:4; 78:3), blades (Pl. 77:2), and cores (Pl. 77:3) were found. The points were shaped by steep retouch along the side approaching the distal end of the piece. Part of the cortex has been left on the surface. Lengths range between 62 mm. and 76.5 mm., widths between 23 mm. and 37.2 mm.. Parallel borers were encountered at Tell esh-Shuneh (de Contenson 1960a: fig. 159), Tell Abu Habil (de Contenson 1960a: figs. 27:8; 30:7), and Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 36:1).

8. Retouched pieces (Pl. 81:6): a single flint tool made on a blade, irregular in shape, was found. The sides have steep retouch. This piece is comparable with those found at Beidha and called a "beaked blade" by Mortensen (Mortensen 1970:38). The piece is 42 mm. in length and 33 mm. in width.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | X | |
| Celts with polished edges | | X | | | |
| Adzes without polished edges | X | X | | X | |
| Adzes with polished edges | | | | X | |
| Chisels | | | | | |
| Hammerstones | X | | | | |
| Notched-scrapers | | X | | | |
| Side-scrapers | | X | | | |
| Notched-knives | | X | | | |
| Knives | | X | | X | |
| Sickle element with gloss | | | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | X | X | X | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | X | | |

Fig. 52. Tell Abu Hamid flint tool types

AL-HAMRA

Al-Hamra is located in the Ghor el-Wahadneh. It is north of the Wadi Kufrinja, ca. 1 km. east of the main Jordan Valley road, ca. 5 km. northwest of the village of Kereimeh, ca. 3 km. north of Tell es-Sa'idiyeh, 1 km. southeast of the village of Subeireh,, and ca. 2 km. east of the Jordan River (Ibrahim, Sauer, and Yassin 1976: figs. 1,2).

The site was first explored by the Jordan Valley Survey team in 1975, who dated all the pottery collected there to the Neolithic/Chalcolithic period. Some flint was also collected at the site (Ibrahim, Sauer and Yassin 1976:50).

Pottery

1. Bowls (Pls. 27:1-11; 28:20:21): three types of bowls were recognized here, they are:

a. Simple bowls (Pls. 27:1-3,5-9; 28:20-21): these are all fragments of handmade bowls. Pl. 27:3 and 5 were formed by coiling, and were well fired. Pl. 27:3 has a wash on the interior, while Pl. 27:5 has a red slip. Pl. 27:5,8 have light core, while Pl. 27:6 and 28:21 have dark cores. The wares are coarse pink or light red with large or medium mineral inclusions. Parallels for these simple bowls occur at Ghrubba (Mellaart 1956: fig. 4:15), Jericho VIII (Droop 1935: Pl. XXXIII:7), Tell esh-Shuneh (de Contenson 1960a: fig. 3:12), and Tell es-Sa'idiyeh (de Contenson 1960a: fig. 32:16). Thus, a date in the Late Neolithic 2 can be suggested for these bowls.

Pl. 28:20 and 21 are lug-handles from bowls. Pl. 28:21 include part of a simple rim. Such a lug-handle occurs in Jericho VIII (Droop 1935: Pl. XLV:5,13), and in the Pits at Beth-Shan (Fitzgerald 1934: fig. 1), both of Late Neolithic 2 date.

b. Everted rim bowls (Pl. 27:4): this is the only example of an everted rim bowl. It is large, well fired, and made of a coarse pink ware with large mineral in-

clusions. This bowl form occurs in Jericho VIII (Ben-Dor 1936: Pl. XXXIII:5), Tell Abu Habil I (de Contenson 1960a: fig. 23:4), and Tell esh-Shuneh I (de Contenson 1960a: fig. 3:12). All are dated to the Late Neolithic 2 (PNB) period.

c. Deep bowls (Pl. 27:10-11): Pl. 27:10 comes from a coiled vessel. It has been poorly fired, and has a light core. The ware is coarse and pink, and contains large mineral inclusions. This type of bowl was found in Area 188, Strip 2 at Jericho (Droop 1935: Pl. XL:17).

Pl. 27:11 is handmade, of a coarse, very pale brown ware with medium sized mineral inclusions.

2. Jars (Pls. 27:12-15; 28:16-19, 22-29): Pl. 27:12-15 are fragments of hole-mouth jars. They are handmade and poorly fired. Pl. 27:14 has a light core, while Pl. 27:15 has a dark one. All are pink except for Pl. 27:13 which is light red. This type of jar is found in Jericho VIII (Droop 1935: Pl. XL:27-31), Megiddo XX (Loud 1948: Pl. 1:19) and Tell Abu Habil III (de Contenson 1960a: fig. 26:9), and can be dated to the last phase of the Late Neolithic 2 (PNB) period and the beginning of the Chalcolithic period.

Pl. 28:16-19 are flat jar bases. They are all handmade, and poorly fired. Pl. 28:16 and 18 have light cores. The ware is pink and contains medium and large sized mineral inclusions. This type of base is known in Tell Abu Habil II (de Contenson 1960a: fig. 24:3), Tell esh-Shuneh I (de Contenson 1960a: fig. 8:3,6), Jericho VIII (Ben-Dor 1936: Pl. XXXIII:19), and Megiddo XX (Loud 1948: Pl. 2:18).

Pl. 28:22-24 are loop-handles from jars. They are handmade and poorly fired. The ware is generally pink, and contains large mineral inclusions. Pl. 28:37 is straw tempered. These loop-handles can be dated to the same period as the jars just discussed.

3. Decorated body sherds (Pl. 29:30,35):

a. Painted sherds (Pl. 29:30,31): these sherds seem

to belong to the same category of painted wares known at Ghrubba. Pl. 29:30 has pale red triangles and dots, and on interior.

Pl. 29:31 has parallel lines of red paint on the interior only. The ware is very crude and pink, badly fired, with cracking and pitting visible on the surface.

b. Incised sherds (Pl. 29:32): this sherd has a pale red slip, and traces of wash on its exterior. It is well fired and has large mineral inclusions. The ware is coarse and light red in color.

c. Rope-moulded sherds (Pl. 29:33-35): these sherds are handmade, of a red ware with mineral inclusions ranging from small to large in size. This type of decoration is found at Jericho in Level VIII (Droop 1935: Pl. XLII:3,7) and continues through the Early Bronze Age.

To sum up, the pottery from al-Hamra may be dated to the Late Neolithic 2, in general. The material, as demonstrated, shows its closest links to pottery from other sites in Palestine and Jordan, and does not appear to be related to traditions known further afield in the greates Syro-Palestine area.

Flint industry

The flint industry of Al-Hamra consisted of irregular flake-cores, adzes, scrapers, knives, sickle-blades, and retouched pieces.

1. Irregular flake-cores (Pl. 54:1): the only example of this type found is a small irregularly shaped, rounded piece of flint flaked from one platform. Part of the cortex is left on the surface, and scars from flaking cover part of it. Its largest diameter is 45.5 mm..

2. Adzes without polished edge (Pl. 60:1): the only example was made on a core, narrows toward the butt, and is covered with bifacial retouch. The edge, which has been resharpened by transversal blow, is convex in shape.

It measures 59 mm. in length and 30 mm. in width. Similar adzes were found at Tell Abu Habil (de Contenson 1960a: fig. 29:3).

3. Side-scrapers (Pl. 66:5): our only example was made on an ovoid flake, with a steeply retouch, simi-circular convex edge. Parts of the cortex is left on the surface. The back shows flaking. This kind of scraper can be compared with the Ghassulian fan-scrapers (Koeppel 1940: Pl. 104:4; 105:4). The piece measures 70.5 mm. in length and 33 mm. in width.

4. Knives (Pls. 69:5; 70:2): two knives made on flakes were recovered. One of them has a triangular section (Pl. 69:5), while the other has a trapezoidal section (Pl. 70:2). Lengths range between 34.5 mm. and 65 mm., and widths between 22 mm. and 31 mm.. Side-scrapers parallel to Pl. 69:5 were found at Tell esh-Shuneh (de Contenson 1960a: fig. 16:1) and Tuleilat el-Ghassul (Koeppel 1940: Pl. 104:3).

5. Sickle-blades (Pls. 71:1; 72:7; 76:3): the sickle-blades are distinguished by sheen, end-retouch (Pls. 71:1); 72:7), and steep retouch on the back. They are made on blades and are either triangular (Pl. 72:7) or trapezoidal in section (Pls. 71:1; 76:3). One of them (Pl. 72:7) is denticulated. Lengths range from 27.5 mm. to 57.5 mm., widths from 14 mm. to 23 mm..

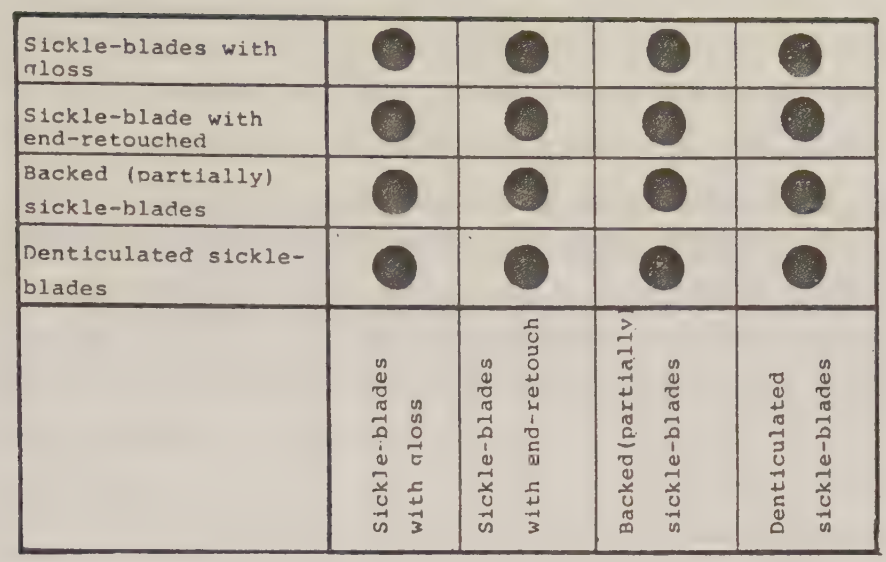


Fig. 53. Al-Hamra sickle-blades

5. Retouched pieces (Pls. 80:5; 81:5): these are made either on blades or on flakes, with some (Pl. 81:5) or no retouch (Pl. 80:5) along the edges. Lengths range from 62 mm. to 38 mm., and widths from 20 mm. to 18.5 mm..

Below is a table showing the tool types distribution at the site:

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | X | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | X | | | |
| Notched-knives | | | | | |
| Knives | | X | | | |
| Sickle element with gloss | | | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | X | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | X | X | | |

Fig. 54. Flint implement types from Al-Hamra

TELL SEQUA'AH

Tell Seqa'ah is located directly on the eastern edge of the Jordan Valley, to the south of the Wadi Kufrinja. It is less than 1 km. to the west of the village of Sa-'idiyeh and ca. 1.5 km. to the southwest of Tell es-Sa-'idiyeh (Ibrahim, Sauer and Yassin 1976: figs. 1,2).

The site was surveyed in 1975 by the Jordan Valley Survey team. Pottery assigned to the Neolithic/Chalcolithic, Early Bronze, and Middle Bronze period was collected, along with flint.

Pottery

Only 7 sherds belong to the Neolithic/Chalcolithic period were found at Tell Seqa'ah.

1. Cups (Pl. 30:1): this sherd is part of a cup which was slipped and painted in red. It is handmade, well fired and has medium sized mineral inclusions. It is made of a coarse pinke ware.

This kind of painted cup with simple rim and lug-handles, is known from Tuleilat el-Ghassul (Koeppel 1940: Pl. 76), which suggests that this cup is related to the Ghassulian Culture and not to the Neolithic.

2. Bowls (Pl. 30:3,5,6): three sherds come from bowls. Pl. 30:3 is part of an angular flat base. It has a red slip, is handmade, and well fired. The ware is coarse and pink, with medium sized inclusions.

This type of bowl occurs in Jericho VIII (Ben-Dor 1936: Pl. XXXIII:21), and Tell esh-Shuneh I (de Contenson 1960a: fig. 8:8). Both levels date to the Late Neolithic 2 (PNB) period.

Pl. 30:5 is a red-painted lug-handles sherd, made of thin, coarse pink ware, with small black and white mineral inclusions. This handle form occurs on both bowls and cups. Similar lug-handles have been found at Tell el-Far'ah (de Vaux 1947: fig. 1:14-16) and Tuleilat el-Ghassul (Koeppel 1940: Pl. 76), which gives a temporal range from the Late Neolithic 2 (PNB) to the Chalcolithic.

Pl. 30:6 is a rim sherd with red paint around the rim and a wash. It is made of a coarse ware with large size mineral inclusions. Similar material comes from many Late Neolithic 2 levels at sites in the Jordan Valley e.g. Tell esh-Shuneh I (de Contenson 1960a: fig. 2:1).

3. Jars (Pl. 30:2,4): Pl. 30:2 is a rim fragment from a hole-mouth jar. It is decorated with finger-nail incisions below the rim, and is made of a very crude, pink ware with large mineral inclusions.

Pl. 30:4 is a red-slipped loop-handle. It is hand-made and well fired. It is made of a coarse pink ware with large inclusions. This type of handle has been found in Tell esh-Shuneh I (de Contenson 1960a: fig. 7:5) and Tell el-Far'ah Enéolithique Moyen (de Vaux 1947: fig. 1:13).

To conclude, the pottery from Tell Seqa'ah can be dated to the Late Neolithic 2 (PNB) period and the beginning of the Chalcolithic period.

Flint industry

Seven flint implements were found at Tell Seqa'ah. All were made on flakes, and show some retouch (Pl. 80:2). They measure between 29 mm. and 78 mm. in length and 16 mm. to 44 mm. in width.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | X | | | |

Fig. 55. Tell Seqa'ah flint tool types

KHIRBET FALAH

Khirbet Falah is situated on the eastern edge of the Z o r of the Jordan River, between the Wadi Rajib and the Wadi Kufrinja. It is ca. 2 km. southeast of Tell es-Sa'idiyeh, and is surrounded by a semicircle of "qattara" hills. The site and the surrounding area are under cultivation.

Glueck visited the site on December 18, 1942, but found only a few sherds of Byzantine and Medieval date (Glueck 1951a: 295-296). In 1975 pottery sherds of the Neolithic/Chalcolithic period and some possibly of Early Bronze date were collected in addition to flint (Ibrahim, Sauer and Yassin 1976:50). Below we present a study for the collected Neolithic/Chalcolithic pottery sherds.

Pottery

1. Bowls (Pl. 31:1-4,7): two bowls form occur:

a. Inverted rim bowls (Pl. 31:1,2): these fragments of handmade bowls with inverted rims were found. They are made of a coarse, pink ware with very small mineral inclusions. Pl. 31:1 has traces of red paint on the exterior. It was well fired, whereas Pl. 31:2 has a dark core. This kind of bowl is known at Tuleilat Batashi in Stratum III (Kaplan 1958a: Pl. 10:2), and in the Enéolitique Moyen at Tell el-Far'ah (de Vaux 1947: fig. 1:29), which suggests a date in the Late Neolithic 2 (PNB) period.

b. Painted bowls (Pl. 31:3,4,7): these sherds are handmade and well fired. The ware is fine, and is painted with a band of red paint either around the exterior or the interior of the rim. Pl. 31:3 and 4 are made of a pink ware, and Pl. 31:7 of a light red ware. Megiddo XX (Loud 1948: Pl. 2:1,2,26), Tell esh-Shuneh I (de Contenson 1960a: fig. 3:3,9), and Tuleilat Batashi III (Kaplan 1958a: Pl. 10:18) all produced similar bowls.

2. Jars (Pl. 31:5): this sherd is handmade of a coarse

light red ware and has white, medium sized inclusions. It has been well fired. Similar jars were found at Tell esh-Shuneh (de Contenson 1960a: fig. 4:2) and Megiddo XX (Loud 1948: Pl. 1:11). According to these parallels, this type of jar may be dated to the Late Neolithic 2 (PNB) period.

3. Incised sherds (Pl. 31:6): this sherd has incised herring-bone decoration, and is covered with red slip. The paste is yellowish in color, with small inclusions. This type of incising is known at Sha'ar ha-Golan (Stekelis 1950-51: Pl.i), at Beth-Shan in the Pits and Stratum XVIII (Fitzgerald 1934: fig.1; 1936: Pl. III: 17,18), Jericho VIII (Ben-Dor 1936: Pl. XXXIII:15) and at Wadi Rabbah (Kaplan 1958b: fig. 4:3). It is typically Yarmukian.

4. Notched sherds (Pl. 31:8): this body sherd is made of a hard, red ware, with very small inclusions. It has been well fired. This kind of notching is known in Jericho VIII (Ben-Dor 1936: Pl. XXXIII:12), Tuleilat Batashi (Kaplan 1958a: Pl. 10:24), Wadi Rabbah (Kaplan 1958b: fig. 6:3) and at Ard Tlaili in Lebanon (Kirkbride 1969: Pl. V). Thus our sherd should be dated to the Late Neolithic 2 (PNB) period.

To conclude, most of the pottery from Khirbet Falah can be dated to the Late Neolithic 2 period, while Pl. 31:1 should be assigned to the Late Neolithic 1 period.

Flint industry

The flint industry assemblage of Khirbet Falah consisted of 15 pieces, including scrapers and sickle-blades.

1. Notched-scrapers (Pl. 64:2): the only example we have is made on a flake with semi-circular or pointed edges. The sides were notched by squamous retouches. Part of the cortex is left on the surface. Length is 37 mm., width is 23 mm.. Similar scrapers were excavated at Beidha (Mortensen 1970: fig. 29:h-j).

2. Sickle-blades (Pls. 73:3; 75:3): the sickle-blades of Khirbet Falah are characterized by end-retouch, and steep retouch on the back. Some are denticulated. They are made on blades, and the use-retouch occurs only along one edge. Length ranges from 19 mm. to 38 mm., and width from 9 mm. to 16.5 mm.. Similar sickle-blades are known from Sha'ar ha-Golan (Stekelis 1950-51: fig. 7:29), Tell esh-Shuneh (de Contenson 1960a: fig. 15:17), Tell Abu Habil (de Contenson 1960a: fig. 27:4), and Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 36:12). The below table shows the combinations of the sickle-blades features:

| | Sickle-blades with gloss | Sickle-blades with end-retouch | Backed (partially) sickle-blades | Denticulated sickle-blades |
|---|---|---|---|---|
| Sickle-blades with gloss | | | | |
| Sickle-blade with end-retouched | | ● | ● | ● |
| Backed (partially) sickle-blades | | ● | ● | ● |
| Denticulated sickle-blades | | ● | ● | ● |

Fig. 56. Khirbet Falah sickle-blades

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | X | X | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | X | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 57 . Flint tool types from Khirbet Falah

TELL EL-QOS

Tell el-Qos is located about 5 km. southeast of Tell es-Sa'idiyeh and about 2.7 km. northeast of Tell el-Mazar. It overlooks the north side of the Wadi Rajib and the south of the Wadi Kufrinja (Ibrahim, Sauer and Yassin 1976: fig. 1). It stands at the eastern side of the main road leading across the Jordan Valley.

The site was visited by Nelson Glueck during his surveys between 1939-1947. He related it to the following periods: Late Chalcolithic, EBI-II, Iron Age I-II, Roman and Byzantine (Glueck 1951a: 297-300). The Late Chalcolithic sherds were picked up by Glueck from the flat, northern part of the site which measures approximately 55 by 40 m. The site was heavily occupied during the EBII period (Glueck 1951a:299).

Pottery

Three sherds dating to the Neolithic/Chalcolithic period were collected by the Jordan Valley Survey team in 1975. One is a flat base (Pl. 32:1), one a round, painted base (Pl. 32:2), and one a red-painted body sherd (Pl. 32:3).

Bases similar to Pl. 32:1 have been found in Level I (Middle Chalcolithic) at Tell esh-Shuneh (de Contenson 1960a:13; fig. 8:6), Jericho VIII (Ben-Dor 1936: Pl. XXXIII:19), and at Abu Usba' (Stekelis and Haas 1952: fig. 17). It may therefore be dated to the Late Neolithic 2 (PNB) period.

Parallels for Pl. 32:2 and 3 occur at Ghrubba in Layers 5-12 (Mellaart 1956: fig. 5:62,81).

No flint tools were collected at the site during the Jordan Valley Survey, in 1975.

TELL EN-NKHEIL

Tell en-Nkheil is located ca. 1.5 km. northwest of Tell el-Mazar, and west of Abu Obeideh, to the south of Wadi Nkheil. It is a low, rounded natural hill, with a smaller hill to the east. It measures ca. 100 m. across and is 1 m. the plain. The Wadi Nkheil cuts down through the qattarah hills to the north and leads to the zor of the Jordan. The cultivated fields around the site are irrigated by the 'Ain en-Nkheil spring and a wadi.

Nelson Glueck, who surveyed the site previously, did not note either a Neolithic or an Early Chalcolithic occupation but emphasized the site's MBI-MBII occupation (Glueck 1951a:307).

Pottery

In 1975, however, pottery dating to the Neolithic/Chalcolithic, EB-MB, MB, LB, and Modern periods as well as flints, were collected (Ibrahim, Sauer and Yassin 1976:49). The Neolithic/Chalcolithic periods are represented by only four sherds, which we shall now discuss.

1. Bowls (Pl. 32:4,7): two kinds of bowls were recognized:

a. Deep bowls (Pl. 32:4): this is a thickened, simple rim, made of a pink well fired ware with small black and white inclusions. Similar bowls have been found at Ghrubba (Mellaart 1956: fig. 4:11) and Tell esh-Shuneh I (de Contenson 1960a: fig. 3:14). They can be dated to the Late Neolithic 2 (PNB) period.

b. Lug-handled bowls (Pl. 32:7): one only example of this type of bowl is made of thin, pink ware with medium sized mineral inclusion. They occur in Level IX (Ben-Dor 1936: Pl. XXXI:8) and in the Upper Neolithic levels at Jericho (Droop 1935:171; Pl. XLV:1-6), and in the Enéolithique Moyen level at Tell el-Far'ah (de Vaux 1947: fig. 1:35).

2. Jars (Pl. 32:5,6): Pl. 32:5 is a flat base with mat-impressions. It is well fired. The paste is light brownish-gray in color, and has small black and white

inclusions. This type of mat-impressed base is known at Jericho, where it occurs from the Late Neolithic 2 (PNB) Level VIII (Ben-Dor 1936: Pl. XXXII: 33B) through Chalcolithic period at Tuleilat el-Ghassul (Mallon, Koeppel and Neuville 1934: Pl. 39:1-2).

Pl. 32:6 is a lug-handle. It is made of a pink ware with small and medium sized inclusions. It may be a part of a large jar, probably attached to the shoulder. Parallels for this kind of lug-handled jars can be found in Tell esh-Shuneh I (de Contenson 1960a: fig. 7:2), and at Tell el-Far'ah in the Enéolithique Moyen level (de Vaux 1947: fig. 1:14,35). Both are dated to the Late Neolithic 2 (PNB) period by the present writer and to the Chalcolithic period by de Contenson (de Contenson 1960a:13,16).

In conclusion, the four Neolithic/Chalcolithic sherds from Tell en-Nkheil date to different periods. While Pl. 32:7 can be dated to the Late Neolithic 1 (?), the rest of the material may be dated to the Late Neolithic 2 (PNB) period.

Flint industry

Cores, notched-knives, sickle-blades, and borers were collected at Tell en-Nkheil.

1. Blade-cores with one striking platform (Pl. 54:4): on our single example striking platform is produced by the removal of the core-tablet. The flaking angle of this type is very narrow. This piece (Pl. 54:4) has a scraping edge, and measures 52.5 mm. in length and 36.5 mm. in width.

2. Notched-knives: these are made on flakes, and are characterized by one or more retouched notches along the edges. Some pieces also have steep retouch, as well as retouch on the ventral side. Lengths are 37 mm. to 50 mm., and widths 16 mm. to 26.5 mm..

3. Sickle-blades (Pls. 71:4,5,6; 75:7; 76:1,2): this group of sickle-blades shows end-retouch, sheen and steep retouch on the back. They are made on blades and

are either triangular or trapezoidal in section. Length ranges from 29 mm. to 47.5 mm., and width from 11 mm. to 16 mm.. Similar sickle-blades are known at Tuleilat el-Ghassul (Koeppel 1940: Pl. 110:1,8,10), Tell esh-Shuneh (de Contenson 1960a: fig. 16:12), Tell Abu Habil (de Contenson 1960a: fig. 30:2) and Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 36:10). Below we present a table showing the combination of the sickle-blades features:

| | Sickle-blades with gloss | Sickle-blades with end-retouch | Backed (partially) sickle-blades | Denticulated sickle-blades |
|---|---|---|---|---|
| Sickle-blades with gloss | ● | ● | ● | ● |
| Sickle-blade with end-retouched | ● | ● | ● | ● |
| Backed (partially) sickle-blades | ● | ● | ● | ● |
| Denticulated sickle-blades | ● | ● | ● | ● |

Fig. 58. Tell en-Nkheil sickle-blades

4. Borers (Pl. 78:5,7): these are made either on a flake (Pl. 78:5) or on a debris (?) (Pl. 78:7). The points are made by semi-steep retouch. Some have irregular retouch along the sides. Length ranges from 40 mm. to 64 mm., and the width from 14 mm. to 25 mm..

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | X | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | X | | | |
| Knives | | | | | |
| Sickle element with gloss | | | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | ? |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 59. Tell en-Nkheil flint tool types

TELL QA'DAN NORTH

Tell Qa'dan is ca. 200 m. southeast of the village of Deir 'Alla, just north of the ancient bed of the Zerqa River. It measures about 40-50 m. in diameter, and is 1-4 m. above the irrigated fields. The tell has been heavily eroded, and is surroundes by cultivated fields. The Zerqa River, a canal which runs toward the tell from the Zerqa River, and the East Ghor Canal are the main water sources for the area. A few modern houses are located on the top of the tell.

The site was first surveyed by Nelson Glueck between 1939-1947. He claimed that during the Early Chalcolithic period this site was related to Tell Deir 'Alla.

Pottery

Many sherds were collected at the tell dating to the Neolithic/Chalcolithic, Late Bronze, Iron 1a, and Ayyubid/Mamluk period. However, only one sherd dating to the Late Neolithic 2 (PNB) period was collected in 1976 (Pl. 33:1). The sherd comes from a bowl, and has a band of red paint on the rim, as well as a very pale brown slip on the exterior. It is handmade, of a coarse, pink ware. Similar material can be found in Megiddo XX (Loud 1948: Pl. 2:6) in the Late Neolithic 2 period.

Flint industry

Five blades were collected at Tell Qa'dan North. Two of them were large sickle-blades (Pl. 70:4,5), and are unique, due to the fact that their cutting edges are deeply retouched and covered with sheen. They were made on fragments of large blades, which is not normal for common sickle-blades. Their lengths run from 30 mm. to 37.5 mm., and their widths from 32 mm. to 33.5 mm.. Similar examples were found at Tell esh-Shuneh (de Contenson 1960a: fig. 16:11).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | X | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 60. Flint implement types from Tell Qa'dan North

TELL QA'DAN SOUTH

Tell Qa'dan South is located ca. 200 m. southeast of Deir 'Alla village, and ca. 300 m. away from the main valley road. It is north of the ancient bed of the Zerqa River, and some 300 m. northeast of Tell Deir 'Alla. The Zerqa River and the East Ghor Canal are the main water sources.

The site is a low, rounded tell surrounded by cultivated fields. It is over 100 m. in diameter and ca. 3-4 m. high. Some erosion is visible on top of the tell, and much brick has been seen in the cuts around the tell itself.

Glueck, who surveyed the site did not differentiate between Tell Qa'dan North and South. He dated the pottery which he collected to the Middle Chalcolithic period (Glueck 1951: 497, Pl. 150; 1951a: 310-311).

Pottery:

Six sherds of Neolithic/Chalcolithic date were found on the site in 1976. The following were distinguished:

1. Bowls (Pl. 33:3): only one sherd appears to come from a bowl. It is made of a crude ware, very pale brown in color. Large black and white mineral inclusions are visible. Similar ring bases do not date to the Neolithic period, at which time most bases were flat. Rather, parallels for it come from the Ghassulian period, e.g. in the Wadi Rabbah (Kaplan 1958b: fig. 4:14).

2. Jars (Pls. 33:2,4-5; 34:6-7): Pl. 33:3 comes from a jar with an everted rim. It has traces of a wash on the exterior. Pl. 33:2 and 7 show surface cracking. Pl. 33:2 and 6 are made of a pink ware, while Pl. 33:7 is light red. All are badly fired, and have black and white inclusions.

Parallels for these sherds occur in Jericho VIII (Ben-Dor 1936: Pl. XXXII:22), Megiddo XX (Loud 1948: Pls. 1:5; 2:48), Tell Abu Habil I (de Contenson 1960a: fig. 23:12), Tell el-Far'ah Enéolithique Moyen (de Vaux 1947: fig. 1:19),

and Tell esh-Shuneh (de Contenson 1960a: fig. 12:4). All are dated to the Late Neolithic 2 (PNB) period.

Pl. 33:4 may be part of a ledge-handle. Similar handles appeared in the Late Neolithic 1 period and continued through the Ghassulian era. Pl. 33:5 is decorated with rope-moulding and can be dated to the Late Neolithic 2 (PNB) period (Loud 1948: Pl. 2:48).

To sum up, the general date of the pottery from Tell Qa'dan South ranges between the Late Neolithic 2 period and the Early Chalcolithic.

No flint implements were reported to be collected at Tell Qa'dan South.

KATARET ES-SAMRA

Kataret es-Samra is located about 40 km. northwest of Amman, 5 km. north of the confluence of the River Zerqa and the Jordan River, and about 6 km. southwest of the Tell Deir 'Alla. It is situated on the Qattar hills overlooking the zor of the Jordan River.

The site was first visited during the second season of the Jordan Valley Survey in 1976, and sounded in May and June 1978 by Albert Leonard. An important Late Bronze Age cemetry has been found there.

Pottery

Very few sherds dated to the Neolithic/Chalcolithic were found and will now be discussed.

1. Bowls (Pl. 35:1-2): Pl. 35:1 has a pale red slip, as well as traces of wash on the exterior. It is badly fired, and has surface crackings. The ware is fine, pink and contains small mineral inclusions. Parallels for this form of bowl were found at Tell Abu Habil in Level II (de Contenson 1960a: fig. 25:6).

Pl. 35:2 is part of a deep bowl with a simple rim. The ware is pink and poorly fired, with a light core and large mineral inclusions. Similar bowls are known from Tell esh-Shuneh Level I (de Contenson 1960a: fig. 3:14), and Tell el-Far'ah in the Enéolithique Moyen levels (de Vaux 1947: fig. 1:19,27,36). Both date to the Late Neolithic 2 period.

2. Jars (Pl. 35:3-5): three sherds are fragments of jars. Pl. 35:3 and 5 are loop-handles. They are made of a coarse ware, and have large mineral inclusions. They are well fired. This type of handle, splayed at the attachment, is also found in Tell esh-Shuneh I (de Contenson 1960a: figs. 4:1; 7:5), Tell Abu Habil I (de Contenson 1960a: fig. 23:8), in the Pits and in Stratum XVIII at Beth-Shan (Fitzgerald 1934: fig. 1:4), and in the Enéolitique Moyen levels at Tell el-Far'ah (de Vaux 1947: fig. 1:19). All of these levels are dated to the Late Neolithic 2 (PNB) period.

Pl. 35:4 shows rope-moulding decorations. This type of decoration is known in the Late Neolithic 2 (PNB) levels at Jericho, where it continues through the Early Bronze Age (Droop 1935: Pl. XLI:15).

In conclusion, the pottery from Kataret es-Samra may be dated to a period roughly equivalent to Jericho VIII/ PNB, e.i. to Late Neolithic 2.

Flint industry

One side-scraper and two sickle-blades were collected at Kataret es-Samra.

1. Side-scraper (Pl. 67:1): this piece is made on a debitage. It is poorly made and has irregular retouch along the convex edge and sides. The sides are straight and they approach the butt. Part of the cortex remains on the surface. This piece measures 63 mm. in length and 27 mm. in width.

2. Sickle-blades (Pl. 72:5,6): our two sickle-blades have sheen along the cutting side, end-retouch on both edges, and steep retouch on the back. One of the blades (Pl. 72:6) is denticulated. They were both made on blades of rectangular shape. They are 60 mm. to 39.5 mm. long, and 16 mm. to 25 mm. width. Similar sickle-blades were found at Tuleilat el-Ghassul (Koeppel 1940: Pl. 110:10), and Tell esh-Shuneh (de Contenson 1960a: fig. 16:12).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | X | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | X | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 61. Kataret es-Samra flint tool types

KTAR TELL ZAKARI

Ktar Tell Zakari is a thin sprawling site on a naturally flat area of qattar hills overlooking the Zerqa River. The site extending into the nearly fields. It is located south of the site of Abu Na'im, on the northern bank of the Wadi Zerqa, and a track connected it with Abu Na'im. The site has an irregular shape, and measures ca. 100-150 m. (N-S) X ca. 50 m. (E-W). It appears to consist on only about one meter of occupational deposite. It has been heavily eroded by the Zerqa River. No architecture was visible on the site, but large stones incised with holes at the base can be seen. No cisterns, tombs, caves were found. A small stone structure, possibly walls or stone lined pit, is visible in the wadi cut.

The flint material collected at the site was originally related generally to the Neolithic/Chalcolithic period (Ibrahim, Sauer and Yassin 1976:50). Later, it was dated more precisely to the Late Neolithic-Early Chalcolithic (Sauer 1980:7). No pottery was reported.

Flint industry:

Several types of flint implements were found at Ktar Tell Zakari:

1. Cores (Pls. 54:3,6; 55:1): three core types were recognized:

a. Irregular flake-core (Pl. 54:6): one example is irregularly shaped by flaking from two platforms. The surface is covered with scars from flaking in different directions. Its largest diameter is 46 mm..

b. Blade-core with one striking platform (Pl. 54:3): our example has a trapezoidal shape. The striking platform was produced by the removal of the core-tablets. It measures 61 mm. in length, and its largest diameter is 50 mm..

c. Blade-core with two striking platform (Pl. 55:1): our example has a trapezoidal form, and two striking platforms. Part of the cortex remains on the surface,

and scars are visible on the surface. The largest diameter is 39 mm..

2. Adzes with polished edge (Pl. 60:3): the only adze we have was made on a core with curved sides narrowing towards the edge and the butt. Part of the cortex remains on the ventral side. The dorsal side is covered with squamous retouch. The polished edge has been sharpened by a single transverse blow. The length of the piece is 165 mm., and the width 45 mm.. Similar adzes were found at Tuleilat el-Ghassul (Koeppel 1940: Pl. 103:3).

3. Chisels: our one example was made on a core with bifacial retouch. The sides narrow at the edge and the butt. Squamous flaking covers both sides. The edges were prepared by bifacial retouch. The piece measures 87 mm. in lenght, and 23 mm. in width.

4. Scrapers (Pls. 63:3; 65:3; 66:6; 67:4): two types of scrapers were distinguished:

a. Notched-scrapers (Pl. 63:3): the example found was made on a flake. It has steep retouch, notched along the concavo-convex edge. The piece is ovoid in shape, and measures 73.5 mm. in length and 40 mm. in width. Similar scrapers were found at Beidha (Mortensen 1970: fig. 29).

b. Side-scrapers (Pls. 65:3; 66:6; 67:4): these were made on flakes, and show steep retouch along the convex edge. In some cases the steep retouch covers the scraping edge. Lengths are between 40 mm. and 72.5 mm., and widths are 32 mm. to 47 mm.. Similar scrapers for Pl. 65:3 were found at Abu Habil (de Contenson 1960a: fig. 28:1,4,5), and for Pl. 67:4 at Beidha (Mortensen 1970: figs. 29,30) and Byblos in the Néolithique récent levels (Cauvin 1968: fig. 72:2). Pl. 66:6 may be assigned to the Ghassulian fan-scrapers (Koeppel 1940: Pls. 104:5; 105:4).

5. Knives (Pl. 70:1,3): one of the two knives (Pl. 70:1) found was made on a biface, the other (Pl. 70:3) on a

blade. The edges were sharpened by squamous retouch. Part of the cortex remains on the surface. Lengths run from 44 mm. to 56 mm., and widths from 23.5 mm. to 33 mm.. Similar knives can be seen at Beidha (Mortensen 1970: fig. 34:a).

6. Borers (Pl. 78:2,4): two borers were found. They were made on flakes, and their point shows semi-steep retouch along the converging edges at the distal end. Part of the cortex is left on the surface. Their lengths range between 55 mm. to 56.5 mm., and their widths from 22 mm. to 34 mm.. Similar borers were found at Tell esh-Shuneh (de Contenson 1960a: fig. 15:9), Sha'ar ha-Golan (Stekelis 1950-51: fig. 8:22), and Tuleilat el-Ghassul (Koeppel 1940: Pls. 196:2; 107:8).

7. Picks (Pl. 79:1): one piece, a large heavy, core implement, pointed on one edge, was found. It had been irregularly flaked along the edges. The butt end of the piece has been rounded to form a handle. The battering marks on the point show that the tool was used. It is 99 mm. long, and 53 mm. wide. Similar picks were found at Beidha (Mortensen 1970: fig. 51).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | X | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | X | | | | |
| Blade-core with two opposite striking platform | X | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | X | | | | |
| Chisels | | | | X | |
| Hammerstones | | | | | |
| Notched-scrapers | | X | | | |
| Side-scrapers | | X | | | |
| Notched-knives | | | | | |
| Knives | | X | X | X | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | X | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 62. Flint tool types found at Ktar Tell Zakari

DHRA' EL-HUSEINI

Dhra' el-Huseini is a low tell or possibly a natural qattara hill with a thick occupation overlying it. It is circular and measures ca. 40-50 m. across. It is 4-5 m. high, of which 2-4 m. appear to the natural hillock. Signs of erosions could be seen on the mound, as well as signs of bulldozing running east-west. The only observable cultural features were some possible pits noticed along the western edge of the site.

Dhra' el-Huseini is located to the southwest of the villages of Deir 'Alla and Ma'adi, south of the Zerqa River. A dirt track along the Zarqa Wadi is the only road leading to the site.

The pottery sherds and flints collected at the site have been attributed to the Neolithic/Chalcolithic, Iron and Ayyubid/Mamluk periods*) (Ibrahim, Sauer and Yassin 1976:50). Later, the early material from the site was dated only to the Chalcolithic period (Sauer 1980:7). Because the Neolithic/Chalcolithic sherds were not in the University of Jordan Archaeological Museum, we shall discuss only the flint found at Dhra' el-Huseini.

Flint industry

The following types were identified:

1. Cores: two different types of cores can be distinguished:

a. Irregular flake-cores: small nodules of flint with irregular flakings. The surface is covered with scars from flaking in several directions. The largest diameter recorded is 38.5 mm..

b. Flake-core with one striking platform: irregularly shaped pieces with cortex preserved on the striking platform. The largest diameter recorded is 37 mm..

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*) According to the surveyors themselves and the survey records Neolithic/Chalcolithic sherds were found among the survey material stored at the University of Jordan Museum. Unfortunately, none of these sherds was found.

2. Celts without polished edge: a large piece with a roughly triangular shape and curved sides approaching toward the butt was recovered. It was made on a core. The length of the celt is 185 mm., and the width is 97 mm..

3. Scrapers: two types of scrapers were recognized:

a. Notched-scrapers: one example was made on a debris with steep retouch. The edges were notched. Part of the cortex remains on the surface. The length of the scraper is 55.5 mm., and the width is 35.5 mm..

b. Side-scrapers (Pl. 67:5): the three pieces belonging to this type were made on core-fragments. Part of the cortex is left on the surface. The convex scraping-edge has been sharpened by steep retouch. Lengths range between 35 mm. and 63 mm. and widths between 30 mm. and 53 mm.. Similar scrapers can be noticed at Beidha (Mortensen 1970: fig. 29), and Tell Abu Habil (de Contenson 1960a: fig. 30:4,5).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | X | | | | |
| Flake-core with one striking platform | X | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | X | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | X |
| Side-scrapers | X | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | | | |

Fig. 63. Dhra' el-Huseini flint tool types

GHRUBBA

As this site has been the target of a sounding its location as well as the archaeological evidence has been discussed in the previous chapter (p.65 ff.). In 1976 it has been subjected to get another surface reconnaissance by the Jordan Valley Survey team, as mentioned earlier. The material found on the occasion can serve as a welcome argumentation of the material known sofar. We, therefore, felt it adequate to present it in details.

1. Bowls (Pl. 36:1-9,11): three types of bowls were recognized:

a. Painted bowls (Pl. 36:2,9): Pl. 36:2 has a band of pale red paint around the exterior part of its rim. It comes from a coiled vessel and was badly fired. Surface cracking can be seen on the exterior surface. The ware is pink, with large mineral inclusions. Similar pottery was found in Layers 5-12 of Mellart's sounding (Mellaart 1956: fig. 5:75).

Pl. 36:9 has red paint below the rim. The ware is reddish-yellow and coarse, with very small sized inclusions.

b. Large deep bowls (Pl. 36:1,3,4,8,11): these are all handmade, of a coarse ware. Nearly all are well fired. Paste color ranges from pink (Pl. 36:3,4), to very pale brown (Pl. 36:1,11), and light red (Pl. 36:8). Pl. 36:1,3,4 have simple rims, the first sherd slightly tapered at the rim. Pl. 36:8 and 11 have square-cut rims. Similar bowls were found in Mellaart's sounding (Mellaart 1956: fig. 4:2-4,7), and in PNA Jericho IX (Ben-Dor 1936: Pl. XXIX:19), and Tuleilat Batashi Stratum IVb (Kaplan 1958a: Pl. 7:11). Thus, this kind of bowl can be dated to Late Neolithic 1 and 2.

c. Shallow bowls (Pl. 36:5-7): these are simple rim. Pl. 36:5 and 7 are made of a coarse ware, while Pl. 36:6 is fine. Pl. 36:5 has a light core and is pitted.

The paste are light red (Pl. 36:5), pink (Pl. 36:6), and reddish yellow (Pl. 36:7). Similar bowls were found at Ghrubba in Layer 7 (Mellaart 1956: fig. 4:9), and at Jericho in Level IX (Ben-Dor 1936: Pl. XXIX: 21).

2. Jars (Pl. 36:10,12,13): two kinds of jars were identified here:

a. Bow-rim jars (Pl. 36:10,13): these are made of coarse pink (Pl. 36:10) and coarse pinkish gray (Pl. 36:13) ware. They are well fired and have small and medium inclusions. Jars similar to Pl. 36:10 often have two loop-handles attached between the shoulder and the neck.

Bow-rim jars are known in Jericho VIII (Ben-Dor 1936: Pl. XXXII:21), Ghrubba (Mellaart 1956: fig. 4:40,41) and Tuleilat Batashi III (Kaplan 1956a: Pl. 10:13). All date to the Late Neolithic 2.

b. Long everted neck jars (Pl. 36:12): this piece has a pale red slip. It is handmade of a coarse pink ware, and has large inclusions. Parallels for it were found at Ghrubba (Mellaart 1956: fig. 4:48), Jericho VIII (Droop 1935: Pl. XL:1), and at Tuleilat Batashi IIIB (Kaplan 1958a: Pl. 10:8). All are dated to the Late Neolithic 2 period.

In addition to the material just discussed, a number of bases, handles and painted body sherds were also found.

Pl. 37:14 and 15 are flat bases with mat-impressions. Similar mat-impressed bases were found in Jericho VIII (Ben-Dor 1936: Pls. XXX:22; XXXII:33B), Wadi Rabbah (Kaplan 1958b: fig. 5:14) and Sha'ar ha-Golan (Stekelis 1950-51: fig. 13:16).

Pl. 37:16 and 17 are handles. Both are pink and made of a coarse ware. Pl. 37:16, a knob-handle, can be paralleled with examples from Jericho IX (Ben-Dor 1936: Pl. XXX:9,10), Tuleilat Batashi Strata IVa and IVb (Kaplan 1958a: Pl. 8:3), and el-Khirbeh es-Soda (Tzori 1958: Pl. IVA). Thus, this type of handle can be dated

to the Late Neolithic 1 (PNA), and is earlier than Pl. 37:17, a loop-handle with parallels in Tell Abu Habil (Glueck 1951: Pl. 12:11), Jericho VIII, and Beth-Shan XVIII.

Pl. 37:18-20 have either straight lines or chevrons painted in red. This type of painting was found by Mellaart in his sounding at Ghrubba (Mellaart 1956: fig. 5:65).

To conclude, the pottery from Ghrubba may be dated to the Late Neolithic 2. It is interesting to note, however, the absence of the herring-bone incised ware at the site, otherwise a characteristic pattern of the Late Neolithic 2 pottery assemblage.

'AFFASH

'Affash is located ca. 2-3 km. northwest of Shuneh South, and less than 1 km. west of Tell Ghannam. The site itself was founded on a series of natural hills along the north side of the Wadi Nimrin (Wadi Shu'eib), east of Ghannam. Traces of burning were noticed on the surface, as well as stone walling.

The site measures ca. 1 km. E-W by 50-100 m. N-S. There appear to be up to 1 m. occupational debris visible along the rim of the wadi although traces of erosion are visible. The site itself is some 3-5 m. higher than the floor of the Wadi Nimrin. Today there is no water in the wadi, due to a modern dam built at the end of the hills.

Pottery

The pottery sherds collected by the survey team all date to the Neolithic/Chalcolithic period, and will now be discussed.

1. Bowls (Pl. 38:1-9): three types of bowls were recognized:

a. Painted bowls (Pl. 38:1,3): Pl. 38:1 has a band of red paint around the rim, while Pl. 38:3 has multiple bands of paint around the body: Both have traces of wash, are handmade, well fired, and pink in color. Pl. 38:1 can be compared with material from Stratum 2 at Munhatta (Perrot 1964:345).

b. Single bowls (Pl. 38:2,4-6): Pl. 38:2 is the only sherd in this group with a red slip. All are well fired except Pl. 38:4 which has a light core. The sherds handmade, coarse, and either pink or very pale brown in color. The inclusions range from small to large. Pl. 38:5 is a slightly everted rim. The rest are simple.

c. Deep bowls (Pl. 38:7-9): Pl. 38:9 has a pink slip, Pl. 38:8 has faint traces of red painted, Pl. 38:7 has signs of a wash. All are handmade, have fairly large inclusions, and square-cut, simple rims. Pl. 38:8

was probably produced on a slow wheel. The bowls usually have flat base, although ring bases also occur.

2. Jars (Pls. 38:10; 39:11-18; 40:24-27): we have two different jar forms:

a. Hole-mouth jars (Pl. 38:10): this sherd is made of a coarse, pink ware with large black and white mineral inclusions. This type of jar was found at Ghrubba (Mellaart 1956: fig. 4:23), Jericho VIII (Droop 1935: Pl. XLLII:7), and Tuleilat el-Ghassul IVA (Koeppel 1940: Pl. 82:18).

b. Long-necked jars with everted rims (Pl. 39:11-18): Pl. 39:11 shows bands of pail red paint around the neck. It is also slipped and has large and small mineral inclusions, Pl. 39:12 was also slipped, while Pl. 39:13,17 and 18 had traces of a wash. All were made of a pink, coarse ware. Pl. 39:13,14 and 18 had large mineral inclusions. Similar jars occur in Strata IVA and B at Tuleilat el-Ghassul (Koeppel 1940: Pl. 82), Munhatta Stratum 2 (Perrot 1964: fig. 3:11,12), Ghrubba (Mellaart 1956: fig. 4:43,44,49), and Jericho VIII (Droop 1935: Pl. XL:6,12,13; Ben-Dor 1936: Pl. XXXII:22). Thus this type of jar can be dated to the Late Neolithic 2 period and the beginning of the Chalcolithic period.

3. Kraters (Pl. 40: 19-22): The sherds are all handmade of a thick coarse, pink ware with large mineral inclusions. Several show traces of a wash (Pl. 40:19,20). Comparable kraters come from Stratum IVB at Tuleilat el-Ghassul (Koeppel 1940: Pl. 81:6, 23-25), Jericho VIII (Droop 1935: Pl. XLI:5,8; Ben-Dor 1936: Pl. XXXII:24B, 29B), and Tuleilat Batashi IIIA (Kaplan 1958a: Pl. 10:4), suggesting a date for this type of krater in the Late Neolithic 2 and the beginning of the Chalcolithic period.

To sum up, the probable date of the pottery from 'Affash falls within the Late Neolithic 2 and the beginning of the Chalcolithic period.

Flint industry

The flint collection from 'Affash consisted of fourteen pieces representing five implement types:

1. Side-scrapers (Pl. 65:2): one example was found. It was made on a large flake, and shows steep retouch along the edges. Part of the cortex remains on the surface. The ventral side shows no retouch. The length of the scraper is 87 mm., and the width is 62 mm.. Similar scrapers were found at Beidha (Mortensen 1970: fig. 29) and Tell Abu Habil (de Contenson 1960a: fig. 28:1,4,5).

2. Knives (Pl. 69:4): the only knife found at 'Affash was made on a flake with flat retouch along the edges. It is trapezoidal in section. The bulb of percution has been trimmed by flat retouch. The knife measures 65 mm. in length and 44 mm. in width.

3. Sickle-blades: the example found was made on a blade. It shows end-retouch, and irregular retouch along the edges. The blade is 37 mm. long and 18 mm. wide.

4. Borers (Pl. 78:6): one piece, made on a flake, was identified as a borer. The point was produced by steep retouch along the distal end of the flake. The bulb of percusion has been trimmed slightly by flaking. The piece is 36.5 mm. long and 19 mm. wide. Similar borers were found at Tell esh-Shuneh (de Contenson 1960a: fig. 15:4).

5. Retouched pieces (Pl. 80:6,7): ten pieces made on blades and flakes were found. They all have been partially retouched along the edges. Lengths ranging between 47 mm. - 91 mm., and widths between 17 mm. and 43 mm..

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | X | | | X |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | X | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | X | X | | |

Fig. 64. Flint tool types from 'Affash.

GHRUBBA EAST

Ghrubba East is a low tell ca. 5 m. high. It is generally round, with a diameter of ca. 80 m. and a further extension towards the west of some 300 m..

The site is located ca. 300 m. north of the main Jerusalem road. It is ca. 2 km. west of the village of Shuneh South, and 1/2 km. west of the Army Blanket Factory. The Wadi Nimrin is located to the north of the site, and may have been the water source for the prehistoric settlement.

Pottery

The sherds collected at the site were predomenantly Neolithic/Chalcolithic, although some Iron Age 1, Byzentine, and modern sherds were also found.

Fragments of bowls, kraters, and jars occur in the collection, and will now be discussed:

1. Bowls (Pl. 44:1-10): two types of bowls were recognized:

a. Straight sided bowls (Pl. 44:1-5): three sherds have red paint along the rim (Pl. 44:1,2,5). Traces of wash can be seen on Pl. 44:1,3,5. Pl. 44:1,2,4 and 5 are made of a thin pink ware, while Pl. 44:3 is made of a light red ware. They all have simple rims.

b. Large deep bowls (Pl. 44:6-10): these are all made of thick, very crude ware, except for Pl. 44:8, which is thin and has a red band around the rim. All are handmade. Pl. 44:7 was coiled. Pl. 44:6,7 and 10 have simple rims, while Pl. 44:8 has a slightly everted rim, and Pl. 44:9 has a square-cut rim.

2. Jars (Pl. 46:16-27): two forms of jars are distinguished here:

a. Hole-mouth globular jars (Pl. 46:14-15): both are made of a thin, pink ware. This type of jar was found in Jericho IX (Ben-Dor 1936: Pl. XXIX:1) and continued through the Late Neolithic 2, Ghrubba (Mellaart 1956: fig. 4) and Tell esh-Shuneh (de Contenson 1960a: figs. 4,5).

b. Short necked jars (Pl. 46:16-18): Pl. 46:18 has a band of pale red paint below the rim, and bears traces of wash on its exterior, whereas Pl. 46:17 was washed on the interior. Pl. 46:17 and 18 have simple everted rims. Pl. 46:16 and 18 have large grit temper and Pl. 46:16 was poorly fired, showing a dark core.

Jars like Pl. 46:17 and 18 may have begun to appear by the end of the Late Neolithic 2 (PNB) period, continuing into the Chalcolithic. Parallels for them can be found in Tell Abu Habil Level II (de Contenson 1960a: fig. 24:1), Tell esh-Shuneh II (de Contenson 1960a: fig. 12:4), and Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 33:10), all dating to the Chalcolithic period (de Contenson 1960a:25,37,56).

3. Kraters (Pl. 45:11-13): three sherds are thought to come from kraters. Pl. 45:11 is made of a coarse, light reddish-brown ware with large inclusions. It has thumb indentations on the rim. Pl. 45:12 is plain and was badly fired. It has large badaltic inclusions. Pl. 45:13 comes from a coiled vessel, and has thumb indentation below the rim.

A number of handles and bases was also found (Pls. 46:19-27; 47). The bases are all flat with the exception of Pl. 46:19, which is rounded. Several have a sharply defined wall/base, angle (Pl. 46:21,24), while most spread out some-what at the bottom (Pl. 46:23, 25-27), a characteristic of the last phase of the Neolithic period (de Contenson 1960a: fig. 8:8,13). Others, rounded at the base (Pl. 46:19,20), may be earlier than the above mentioned bases (Ben-Dor 1936:81).

The handles found included lug-handles (Pl. 47:28-30) and loop-handles (Pl. 47: 31-33). Lug-handles can come from either jars or bowls.

Parallels for the painted sherds from Ghrubba East occur in Tuleilat Batashi IVB (Kaplan 1958a: Pl. 7:7) and Megiddo XX (Loud 1948: Pl. 2:5). None of our painted

sherds was slipped, and only one was burnished (Pl. 48:35). This latter sherd vaguely recalls the so-called archaic painted ware from Level III at Hassuna (Lloyd and Safar 1945: fig. 8). It should be noted that the painted pottery from Ghrubba East shows different designs from those found in Mellaart's sounding at Ghrubba: whereas the Ghrubba material shows a predominence of zig-zags, triangles, and dots, Ghrubba East produced mainly sherds with parallel, horizontal lines and crisscross lines with cross-hatched diamonds.

To conclude, the pottery from Ghrubba East dates to a period covering the Late Neolithic 2 and the beginning of the Chalcolithic period.

Flint industry

Celts, adzes, chisels, scrapers, knives, and retouched pieces were among the eleven pieces of worked flint collected at Ghrubba East.

1. Celts: two types of celts are distinguished here:

a. Celts without polished edge (Pl. 56:2): the only example was made on a biface. Both sides show bifacial retouch, and the ventral face has been flaked by squamous retouch, and the ventral face has been flaked by squamous retouch. Part of the cortex is visible on the surface. The piece measures 63 mm. in length and 36 mm. in width.. Similar celts can be found at Beidha (Mortensen 1970: fig. 49:a).

b. Celts with polished edge (Pl. 57:2): the example we have was also made on a biface. It is roughly ovoid in shape, with sides curving as they approach the butt. Squamous retouch occurs along the sides and on both dorsal and ventral faces. It measures 87 mm. in length and 40 mm. in width. Parallels for this piece were found at Beidha (Mortensen 1970: fig. 49:b-c), Tell Abu Habil (de Contenson 1960a: fig. 28:3), and Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 35).

2. Adzes (Pl. 59:1): the only adze we have from Ghrubba

East has no polished edge. It was made on a biface. Squamous retouch covers both surfaces. The piece measures 92 mm. in length and 45 mm. in width.

3. Chisels (Pl. 62:2): the one chisel uncovered was made on a core. The sides curve slightly towards the edge, and traces of battering are visible. Both surfaces have been prepared by squamous flaking from the sides. The example is bifacial, and measures 78 mm. in length and 31 mm. in width. Similar chisels occur at Abu Habil (de Contenson 1960a: fig. 30:9).

4. Side-srapers (Pl. 67:6): one piece made on a flake, with irregular retouch on the edges, was found. The scraping edge is convex and was produced by steep retouch. The other two sides form more or less continues scraping-edge. The piece is 51 mm. long, and 37 mm. wide. Comparable pieces were uncovered at Beidha (Mortensen 1970: fig. 29:e).

5. Knives: one example was careless made on a flake, with a triangular section. The cutting edge shows irregular retouch. Part of the cortex is visible on the surface. The length of the knife is 50 mm. and the width is 31 mm..

6. Retouched pieces (Pl. 81:1): the piece we have was made on a flake. It has been retouched partially along one edge. Some of the cortex is still visible. It is 63 mm. long and 21.5 mm. wide.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | x |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | x | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | x | |
| Adzes with polished edges | | | | | |
| Chisels | | | | | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | x | x | | | |
| Notched-knives | | | | | |
| Knives | | x | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | | | | |
| Retouched pieces | | | x | | |

on a celt

Fig. 65. Ghrubba East flint tool types.

ES-SADD EL-GHARBI

Es-Sadd el-Gharbi is located ca. 3 km. west of the settlement of 'Ajajereh. Dirt tracks link it to the main valley road 6 km. to the east, and to the Ramah-Bridge road. It is ca. 3 km. north of Qaber Afandi, separated from it by the Wadi Kafrein and Rameh.

The site consists of a series of low rises along the Wadi Kafrein and the Wadi Rameh. The early material (Neolithic/Chalcolithic) was found in an area measuring ca. 500 m. (E-W) by 200 m. (N-S), and in a scatter on a small ridge to the west. Stone walls of the Early Roman period are visible on a hill ca. 500 m. west of wadi junction, and signs of burning are also visible on the surface in some places. The site is ca. 4-5 m. above the floor of the wadi, and slopes gently out towards cultivated fields.

Pottery

Thirteen Neolithic sherds in all were collected at the site, including nine rims, four handles, and one body sherd. The forms represented are the following:

1. Cups (Pl. 49:4): the only example we have has been pierced, and badly fired. It was made of a pink ware, with large mineral inclusions. Similar cups were found at Ghrubba (Mellaart 1956: fig. 4:16).

1. Bowls (49:2,3,5): all can be assigned to deep bowls. Pl. 49:2 has traces of wash. Comparable bowls can be found at Ghrubba (Mellaart 1956: fig. 4:3,16,27).

3. Kraters (Pl. 49:6): one sherd was identified as a krater. It has been made of a gray ware, with large mineral inclusions, and rope-moulding decoration. Similar kraters were uncovered at Ghrubba (Mellaart 1956: fig. 4:24).

4. Jars (Pls. 49:1,7-9; 50:10-12): two types of jars were represented:

a. Hole-mouth jars (Pl. 49:1): this sherd is reddish brown on exterior and dark gray on the interior. It has

large mineral inclusions. Parallels for this type of jar occur in Ghrubba Layers 5-12 (Mellaart 1956: fig. 4:35) and in Munhatta 2 (Perrot 1964: fig. 3:14).

b. Globular jars (Pl. 49:7-9): Pl. 49:7 is made of a coarse, light reddish-brown ware with large mineral inclusions. Pl. 49:8 is made of a light brownish-gray ware with small inclusions, while Pl. 49:9 is pale brown and also has small inclusions.

Loop handles similar to Pl. 50:10-12 are known from Tell esh-Shuneh I (de Contenson 1960a: fig. 7:4) and Stratum XVIII at Beth-Shan (Fitzgerald 1935: Pl. II:16).

To sum up, the pottery from es-Sadd el-Gharbi can be dated to the period of the so-called Plain Pottery from Ghrubba (Late Neolithic 2).

Flint industry

The flint collection of es-Sadd el-Gharbi consists of 15 pieces belonging to the following types:

1. Irregular flake-core (Pl. 54:5): on small nodule of flint, irregularly shaped by flaking was found, one of its edges has been retouched, and the piece may have been used as a scraper. The greatest diameter of the core is 38 mm..

2. Celts (Pls. 55:3; 56:1; 57:3): two types of celts were identified:

a. Celts withouth polished edge (Pls. 55:3; 56:1): these were made on bifaces. They have curving sides, and have been bifacially retouched by squamous flaking from the sides. The edges are convex. One example (Pl. 56:1) has been partially retouched along the edges. Their lengths range between 90 mm. and 117 mm., and their widths between 39 mm. and 56 mm.. Similar flint tools for Pl. 56:1) can be found at Sha'ar ha-Golan (Stekelis 1950-51: fig. 3:1), which was identified as an axe.

b. Celts with polished edge (Pl. 57:3): one only example was also made on a biface. It is roughly ovoid in form. Part of the cortex is visible. The sides curve towards the butt. Wear marks can be seen on the edges.

The celt measures 81 mm. in length and 35 mm. in width. This type of celt was found at Sha'ar ha-Golan (Stekelis 1950-51: fig. 2), Tell es-Sa'idiyeh el-Tahta (de Contenson 1960a: fig. 35:2), and Tuleilat el-Ghassul (Koeppel 1940: Pl. 101).

3. Adzes without polished edge (Pl. 59:3): the only example found was made on a biface. Its sides curve as they approach the butt. The use edge is convex and has been re-sharpened by a transverse blow. Part of the cortex remains on the surface, and signs of battering are visible along the sides. The piece measures 61.5 mm. in length and 32.5 mm. in width. Similar adzes were found at Tell Abu Habil (de Contenson 1960a: fig. 27:6).

4. Chisels (Pl. 62:3): two pieces were distinguished as chisels. They were made on bifaces, and have curved sides approaching the edge. The dorsal and ventral faces have been prepared by squamous flaking from the sides. The edges have been sharpened by a single transverse blow. Their lengths run from 54 mm. to 76 mm. and their widths from 30 mm. to 33 mm.. Comparable chisels were noticed at Beidha (Mortensen 1970: fig. 47:a,b).

5. Borers: two borers made on flakes were collected. The distal ends show steep retouch. Their lengths are 53 mm. and 67 mm., and their widths are 17 mm. and 55 mm..

6. Burin (Pl. 79:6): only one piece found during the Jordan Valley Survey was classified as a burin. This piece was made on a blade. The edge was shaped at one end by a vertical burin-blow, and retouch is visible on the ventral side. The piece measures 40 mm. in length and 20 mm. in width. Similar burins were uncovered at Beidha (Mortensen 1970: fig. 26:b).

7. Retouched pieces (Pl. 81:9): three retouched pieces made either on flakes or on blakes were collected. They have partially retouched edges. Length ranges between 85 mm. and 31.5 mm., and width between 11 mm. and 26 mm..

WADI EL-MALIH

Wadi el-Malih is a low occupation site (ca. 1 m.) on the natural eroded, qattara-like hills overlooking the Wadi el-Malih. It is ca. 3-4 km. southwest of the village of Ramah, and ca. 1 km. from the Jordan Valley main road. Topographically, it is a tongue of land between the Wadi el-Malih and the Wadi Jerafeh, with flat fields to the east and the west.

The site measures ca. 300 m. (E-W) X ca. 75 m. (N-S). It has been heavily eroded by a wadi to the south. Some digging, perhaps by the army, as well as signs of plowing, were noticed on the surface.

Pottery

Cups, bowls, and jars occur in the collection:

1. Cups (Pl. 51:1): This rim sherd has a lug-handle. It is made of a well-fired, thin ware. Cups were also found at Ghrubba, and the same form was also identified as a jar by Mellaart, found at Ghrubba (Mellaart 1956: fig. 4:28).

2. Bowls (Pls. 51:2,3,5; 51:13-15): these sherds come from deep bowls, most of which have simple rims. All have flat bases, and one has mat-impressions. Two sherds (Pl. 51:3,12) bear traces of wash, while (Pl. 51:13) has been slipped in red. Parallels for these bowls were found at Ghrubba (Mellaart 1956: fig. 4:4,8), Tell esh-Shuneh (de Contenson 1960a: fig. 3:17), and Tell Abu Habil (Glueck 1951: Pl. 121:15,19).

3. Jars (Pls. 51:4,6-12; 52:16-21): two forms of jars were recognized:

a. Jars with simple everted rim (Pl. 51:4,8): these are handmade, well-fired, and made of a light red ware. This type of jar usually has a strapped loop-handle and a flat or rounded base. Parallels for these jars were found at Ghrubba (Mellaart 1956: fig. 4:38,44), Tell esh-Shuneh I (de Contenson 1960a: fig. 4:2), Tell Abu Habil (Glueck 1951: Pl. 121:18,24), Megiddo XX (Loud 1948: Pl. 1:4), and Jericho VIII (Ben-Dor 1936: Pl. XXXII:23A).

b. Hole-mouth jars (Pl. 51:6,7,9-12): this type of jar was dominant in the collection. Several of these sherds may be from cooking-pots (Pl. 61:6,7). The common characteristics exhibited are simple rims; rounded or flat bases, often with mat-impressions; and a wash (Pl. 51:11,12). One sherd shows rope-moulding. Most are made of a light red ware, although some are made of a pink or gray ware. The same kind of jar was also found at Ghrubba (Mellaart 1956: fig. 4:26,28), Tell el-Far'ah (de Vaux 1947: fig. 1:8; 1961: fig. 1:9), Jericho VIII (Ben-Dor 1936: Pl. XXXII:25A,25B,34C), Tell esh-Shuneh I (de Contenson 1960a: figs. 5:7; 11:5), Wadi Rabbah (Kaplan 1958b: fig. 5:7), and Megiddo XX (Loud 1948: Pl. 1:16-21). Hole-mouth jars are also known from Tell Aswad in the Djezireh (Cauvin 1972: figs. 1-4; 1974:199) and Abu Hureyra in Syria (Moore 1975: fig. 5). This means that it may be that this form of jar started in the Late Neolithic 1 (PNA Phase) and continued through to the EBI.

4. Incised Ware (Pl. 52:20): one body sherd has two sets of incised, roughly parallel lines. Similar wares are known from Sha'ar ha-Golan (Stekelis 1950-51: Pl. i:3), Wadi Rabbah (Kaplan 1958b: fig. 6:6), and Khirbet 'Ain Duq (Glueck 1951: Pl. 15:1-7).

In conclusion, the pottery from Wadi el-Malih can be dated to the Late Neolithic 2 (PNB) and the beginning of the Chalcolithic period.

Flint industry

The flint assemblage of Wadi el-Malih consists of ten pieces belonging to five types:

1. Adzes with polished edge (Pl. 61:1): one example was made on a biface. Its sides curve towards the butt. The polished edge is convex. Both dorsal and ventral faces show bifacial retouch by squamous flaking from the sides. The length measures 72.5 mm. and the width is 34 mm.. Similar adzes were found at Sha'ar ha-Golan (Stekelis 1950-51: fig. 2).

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | X |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | X | |
| Celts with polished edges | | | | X | |
| Adzes without polished edges | | | | X | |
| Adzes with polished edges | | | | | |
| Chisels | | | | X | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | | | |
| Sickle element with end-retouched | | | | | |
| Backed sickle elements | | | | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | X | | | |
| Burins | | | X | | |
| Pointed tools | | | | | |
| Retouched pieces | | X | X | | |

Fig. 66. Tool types from es-Sadd el-Gharbi

2. Chisels with polished edge (Pl. 63:2): the only chisel found at this site was made on a biface. Its sides are slightly curved as they approach the edge and the butt. The dorsal and the ventral faces were prepared by squamous retouch from the sides. The cutting edge has been re-sharpened by transversal blow. The chisel is 99 mm. long and 21.9 mm. wide. Similar chisels were excavated at Beidha (Mortensen 1970: fig. 47).
3. Side-scrapers (Pl. 65:1; 66:2): two side-scrapers were found. One was made on a core (Pl. 65:1) and may be Palaeolithic in date, while the other was made on a flake. The former has a convex edge, while the latter has concavo-convex edges. Part of the cortex remains on both of these pieces. The scraping edges have been steeply retouched. The pieces measure 87 mm. and 107 mm. in length and 42 mm. and 62 mm. in width. Scrapers with convex scraping edge were found at Tell esh-Shuneh and Tell Abu Habil (de Contenson 1960a: figs. 15:6; 30:4,5).
4. Sickle-blades (Pls. 73:1,5; 74:2,3): these are characterized by sheen on the cutting edges, end-retouch, steep retouch on the back, and either a rectangular or trapezoidal section. They measure 30 mm. to 48 mm. in length, and 11 mm. to 15 mm. in width. Comparable sickle-blades were found at Tell esh-Shuneh (de Contenson 1960a: fig. 16:12) and Tuleilat el-Ghassul (Koeppel 1940: Pl. 110:4,10).
5. Pointed tools (Pl. 79:2): two pieces made on flakes have points which have been prepared by semi-steep retouch were found. The backs of the pieces show steep retouch. They are irregular in shape. Part of the cortex is left on the surface of one of them (Pl. 79:2). They measure 41 mm. to 47 mm. in length and 27 mm. to 36 mm. in width.

| TYPE | core | FLAKE | BLADE | BIFACE | OTHERS |
|---|---|---|---|---|---|
| Irregular flake-core | | | | | |
| Flake-core with one striking platform | | | | | |
| Blade-core with one striking platform | | | | | |
| Blade-core with two opposite striking platform | | | | | |
| Pieces with use-retouches | | | | | |
| Celts without polished edges | | | | | |
| Celts with polished edges | | | | | |
| Adzes without polished edges | | | | | |
| Adzes with polished edges | | | | X | |
| Chisels | | | | X | |
| Hammerstones | | | | | |
| Notched-scrapers | | | | | |
| Side-scrapers | | X | | | |
| Notched-knives | | | | | |
| Knives | | | | | |
| Sickle element with gloss | | | X | | |
| Sickle element with end-retouched | | | X | | |
| Backed sickle elements | | | X | | |
| Denticulated sickle elements | | | | | |
| Large sickle elements | | | | | |
| Borers | | | | | |
| Burins | | | | | |
| Pointed tools | | X | | | |
| Retouched pieces | | | | | |

Fig. 67. Wadi el-Malih fltint implement types.

## CONCLUSION

As mentioned above already in the introduction the Neolithic forms an important stage in the long development of mankind towards higher forms of civilization. It covers the time-span from the moment when man for the first time started to become increasingly independant from nature in securing his daily needs, till the point he had learned to make full use of the various innovations found during that course.

As indicated in Chapter II in the description of the various sites, there is enough reason to believe that this was no different in the area of consideration: settlements are of a permanent nature, yet the archaeological remains show that the subsistence was secured through a mixed economy which aside from substantial contribution from the production of food still retained to a varying degree the techniques of food collecting. Likewise, the area has participated in the horizon of the emergence of the first pottery, covering almost the entire Near East and beyond.

The main problem has been - and still is - the paucity of excavated material from the East Bank of Jordan, which would allow to substantiate those general remarks. It is the reason which prevents us sofar from pursuing one of the most interesting questions: that of regional peculiarities of our area, which set it apart from the archaeologically better known neighbouring areas of Syro-Palestine. Because of our limited scope the area of the East Bank of Jordan seems to be fully integrated into the larger Syro-Palestine area, with exceptions: firstly, there is no evidences of White Ware, which is one of the PPNB products, found in the Pottery Neolithic levels from Jordan (East Bank) as the case of some sites excavated in Syria (Mellaart 1975:62); secondly, the absence of the Dark Faced Burnished Ware in Jordan.

The main aim of this treatise has been to discuss recently found material and to put it into the framework of known material. Though none of the problems mentioned above could be brought closer to a solution because of the nature of surface material; yet it was possible to increase the number considerably of settlements known to have been inhabited during the Neolithic period. Though the overall number is still inadequate statistically the picture shown on figs. 71,72 may be more than accidental in showing two peaks in the settling of the land in the PPNB and Late Neolithic 2, with a sharp decline towards the Early Chalcolithic. However, we feel it premature to venture on any explanations of such phenomena. It is therefore that in the end we have to return to the description of the changes in pottery styles as our main source of information. The following is meant as such a rough sketch which hopefully will be argumented in every direction, in not too distant feature.

Within the Neolithic Stage, two cultural phases may be distinguished: Early, and Late Neolithic, with the latter subdivided into the subphases Late Neolithic 1 and 2.

The Early Neolithic Phases including Jericho Proto-Neolithic, PPNA and PPNB, and is characterized by a simple agricultural economy combined with hunting and gathering. This economy may be considered a development out of the Proto-Neolithic period, indicated by the first appearance of cultivated cereals found there. In the second half of it (PPNB) the temperature continued to rise whereas a range of cereals and legums was regularly cultivated (Moore 1978:482).

After the end of the Early Neolithic the eastern desert of the Jordan was never occupied as fully as it had been before. It seems that a deteriorating climate played a great role in forcing man off the desert.

The Late Neolithic Phase can be divided into two Phases. Late Neolithic 1 comprises the Yarmukian and Jericho IX/PNA cultures, and Late Neolithic 2 covers Ghrubba, Jericho VIII/PNB, Tell esh-Shuneh I, Tell Abu Habil I, Tuleilat Batashi III, and Munhatta 2A1.

The Neolithic period in the Syro-Palestine area can be divided into the following phases:

1. The Early Neolithic Phase: including the Proto-Neolithic, PPNA, and PPNB cultures. The White Ware is one of the PPNB productions. This kind of ware has been found at 'Ain Ghazal near Amman in Jordan. Mellaart also stated that he picked up some in the Wadi Shu'eib (Mellaart 1975:56; fig. 21).
2. Dark Faced Burnished Ware Phase: Dark Faced Burnished Ware was first identified in 'Amuq area (Braidwood J. and Linda Braidwood 1960), and is known also in Syria, Lebanon and the northern part of Palestine (Schaeffer 1932; 1959).
3. The Yarmukian Phase: A few sherds found at Tell el-Arba'in and Wadi el-Malih with herring-bone incisions or were notching can be related to the Yarmukian material from Sha'ar ha-Golan and Munhatta 2B2.
4. The Jericho IX/PNA Phase: Dhra' is the only site on the East Bank of Jordan which can be attributed definitely to this phase. It was discovered by T.D. Raikes, and excavated by C. Bennett (Bennett 1980:30-40). Our survey in the Jordan Valley recovered sherds of this phase at Ghrubba East. This phase was also represented at Munhatta in Stratum 2B1.
5. Ghrubba Phase: The material excavated by Mellaart at Ghrubba were dated by him to a period earlier than Jericho IX and VIII, and contemporary with 'Amuq B (Mellaart 1956:33). Similar sherds were collected at many sites by the Jordan Valley Survey including, Tell el-Arba'in, Tell Ma'ajajeh, Abu Hamid, el-Hamra, el-Qos,

Ghrubba, Ghrubba East, es-Sadd el-Gharbi and Wadi el-Malih. The phase is characterized by red slipped pottery, painted ware with triangles, dots and bands and an abence of incised ware.

6. The Jericho VIII/PNB Phase: It seems that the Jordan Valley was heavily occupied during this period. Most of our Neolithic sites were settled in this period as indicated by the fact that pottery belonging to this phase was found at all of the sites visited (cf. fig.68 ).

Some scholars argue that the material from Jericho VIII should be dated to the Chalcolithic period instead of the Neolithic (Wright 1937:26; de Contenson 1966b:2-6). In our opinion it should be considered Neolithic for the following reasons:

1. B. Hennessy, when excavating Tuleilat el-Ghassul, found pottery of Jericho VIII type under the Ghassulian levels.

2. Tuleilat Batashi, a site on the West Bank of Jordan, excavated by Kaplan, yielded sherds of Yarmukian type in Stratum III mixed with others of Jericho VIII type. Although the excavator dated this stratum to the Chalcolithic (Kaplan 1958a:8-24 "Hebrew", 83 "English Summary"), the Yarmukian material suggests Neolithic date.

3. At Munhatta in the western side of the Jordan Valley, pottery sherds were found in Stratum 2 which were similar to those from Jericho IX and VIII, together with material comparable to Sheikh 'Ali Strata 3-4; Sha'ar ha-Golan, Tuleilat Batashi, Ghrubba, and Byblos Moyen, all of Neolithic date (Perrot 1966:345).

4. At 'Ard Tulaili in Lebanon, bow-rim jars, a type known in Jericho VIII, found in a contex which yielded C14 dates falling in the Neolithic time range (Kirkbride 1969b:55, fig. 4). Thus, we would date Jericho VIII to the Neolithic period (PNB), and compare it to Beth-Shan Pits and Stratum XVIII, Megiddo XX, Tuleilat Batashi III, Tell esh-Shuneh I, and Tell Abu Habil I.

With the exception of one piece of a cornet from Tell Zaqqum North and spoons from Abu Habil and Ghrubba, no Ghassulian types (e.g. churns, V-shaped bowls, fenestrated bowls) were recognized in our survey collection. This fact suggests that most of our early material is pre-Ghassulian, i.e. pre-Chalcolithic or Neolithic.

It can be suggested that the Neolithic sites visited during our survey belonged to farming communities. This is indicated by the absence of the arrow-heads, and the abundance of sickle-blades in our collection. Furthermore, most of our sites are located near water sources (cf. fig.71 ). These farming communities probably predate the coming of the Ghassulians, who appear to have destroyed the indigenous Neolithic Culture, adopting some of its cultural elements such as red-painted bowls in the process. Hence the presence of isolated features with parallels in the Ghassulian period does not necessarily indicate a Ghassulian date for the sites in question.

Most of our Neolithic pottery was handmade, some of it coiled. Mat-impressed bases sometimes occur.

The ware is mostly friable, and is usually coarse and medium to thick rather than fine. The temper is usually consisted of large mineral inclusions, although medium and small sized temper occurs as well. Most of the pottery was well fired, and pink in color.

Occasionally our sherds show traces of a red slip. Only two pieces were burnished. Sherds with herring-bone incisions or notching also occur, and can be related to the Yarmukian.

Many of the collected pottery sherds were red-painted, while fewer were painted in brown. Patterns of decorations include bands of red paint around the rims of bowls, parallel lines on the body, zig-zags, triangles and dots.

The forms recognized include cups, bowls, kraters, jars, cooking-pots, and spoons.

Cups have simple rims, and lug-handles, and are made of thin ware. Occasionally they were painted. Bowls are usually rounded, and may have lug-handles (cf. Pl. 8), or knob-handles (cf. Pl. 37:16). These bowls usually have flat-bases and simple rims, and were occasionally decorated with a band of paint around the rim.

Hole-mouth jars are dominant in our pottery collection. This type of jar has been found at many sites in the Syria-Palestine area, globular jars also occured. The other form of jar present, which typically belongs to the Late Neolithic 2 (PNB) period, is the bow-rim jars. Jars with simple rims were also found, some of which had splayed loop-handles. Flat bases are common, and are sometimes mat-impressed.

Fragments of kraters were found at Abu Hamid, Abu Habil, 'Affash and Ghrubba East. They have either flat or rounded bases, triangular rims and are usually made of a thick ware.

Only one fragment of a spoon was found. It comes from Tell Abu Habil.

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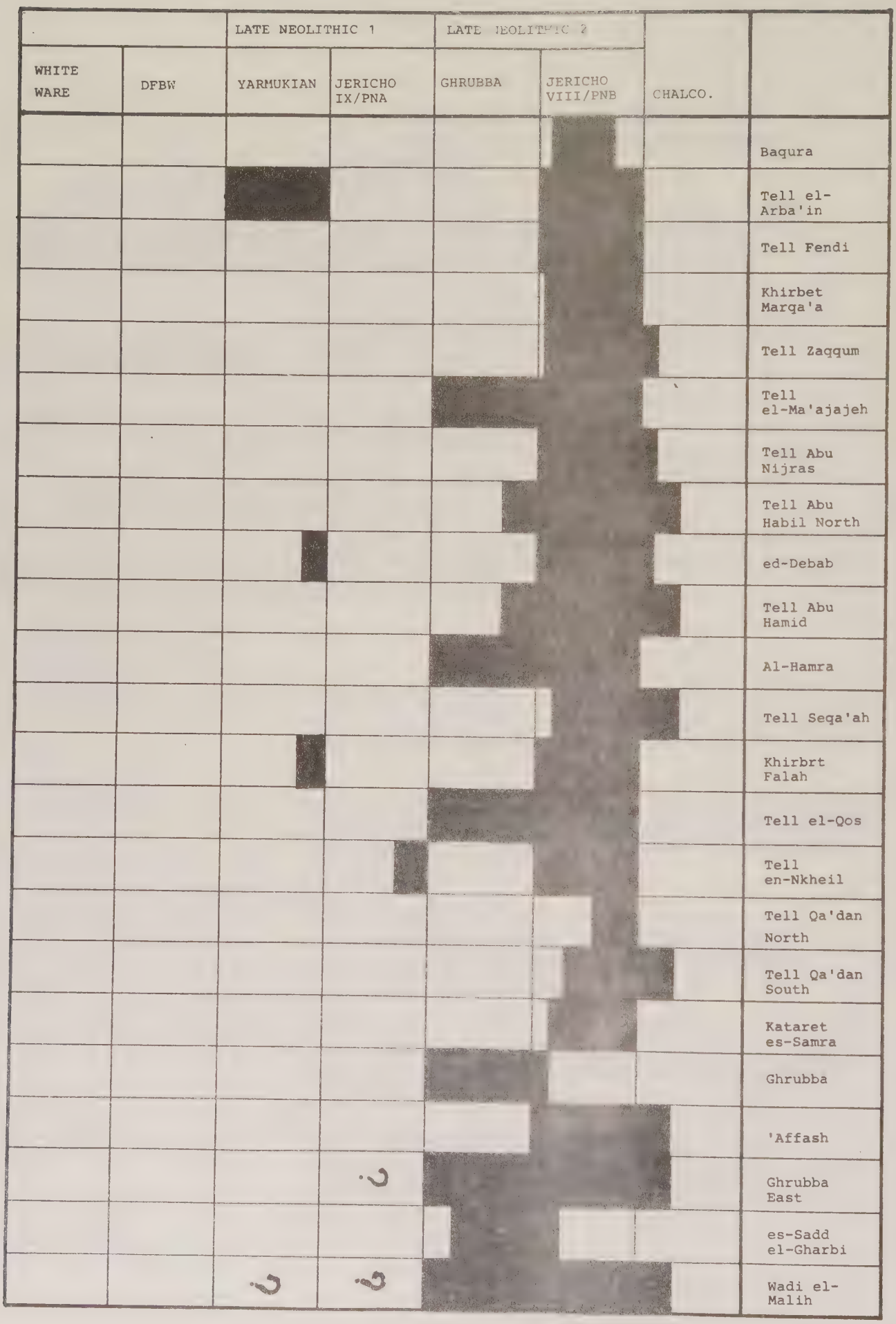
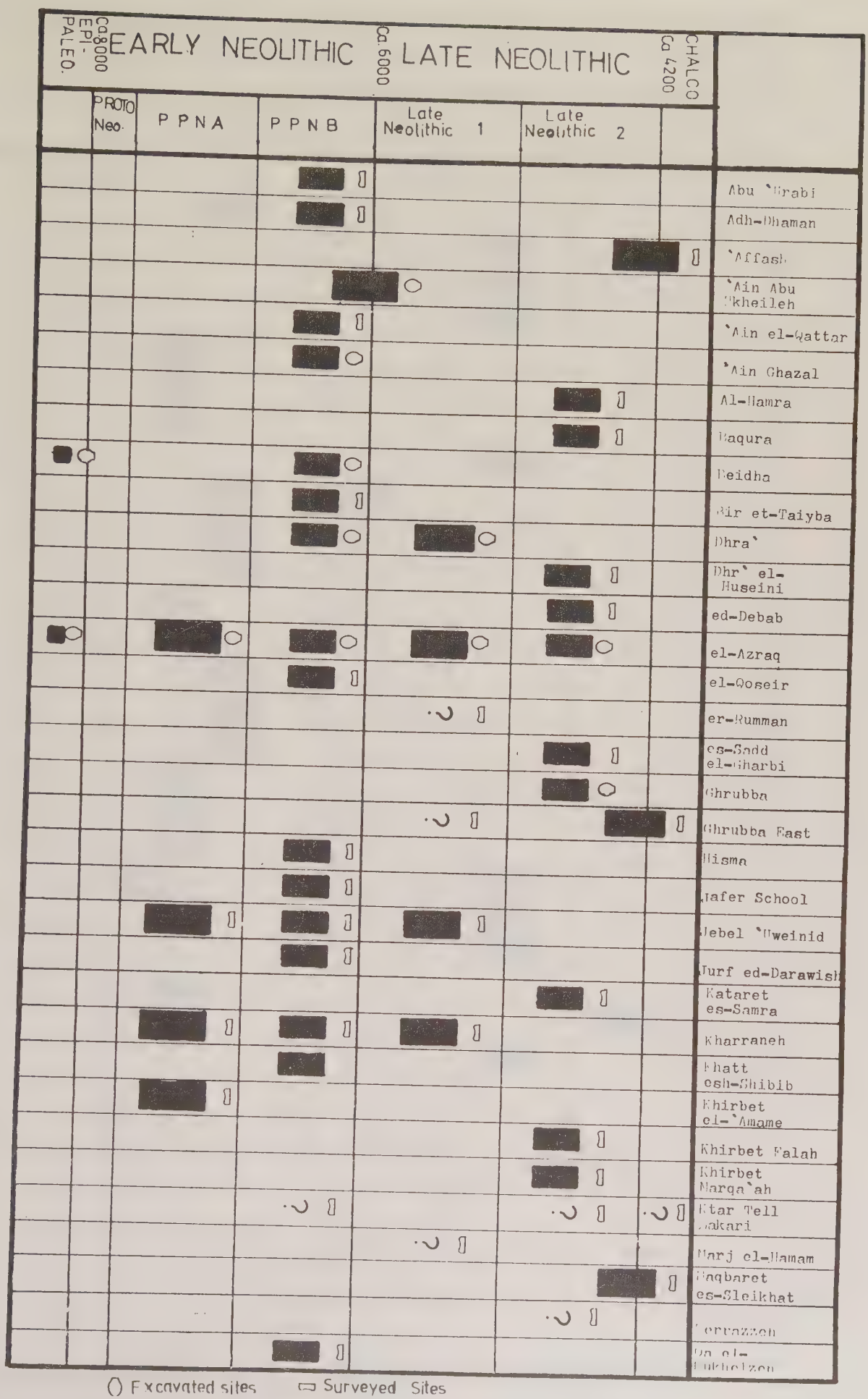



Fig. 68. Chronological Table of the pottery sherds collected in the 1975 and 1976 from the Jordan Valley




() Excavated sites ▭ Surveyed Sites

Fig. 69. Chronological table

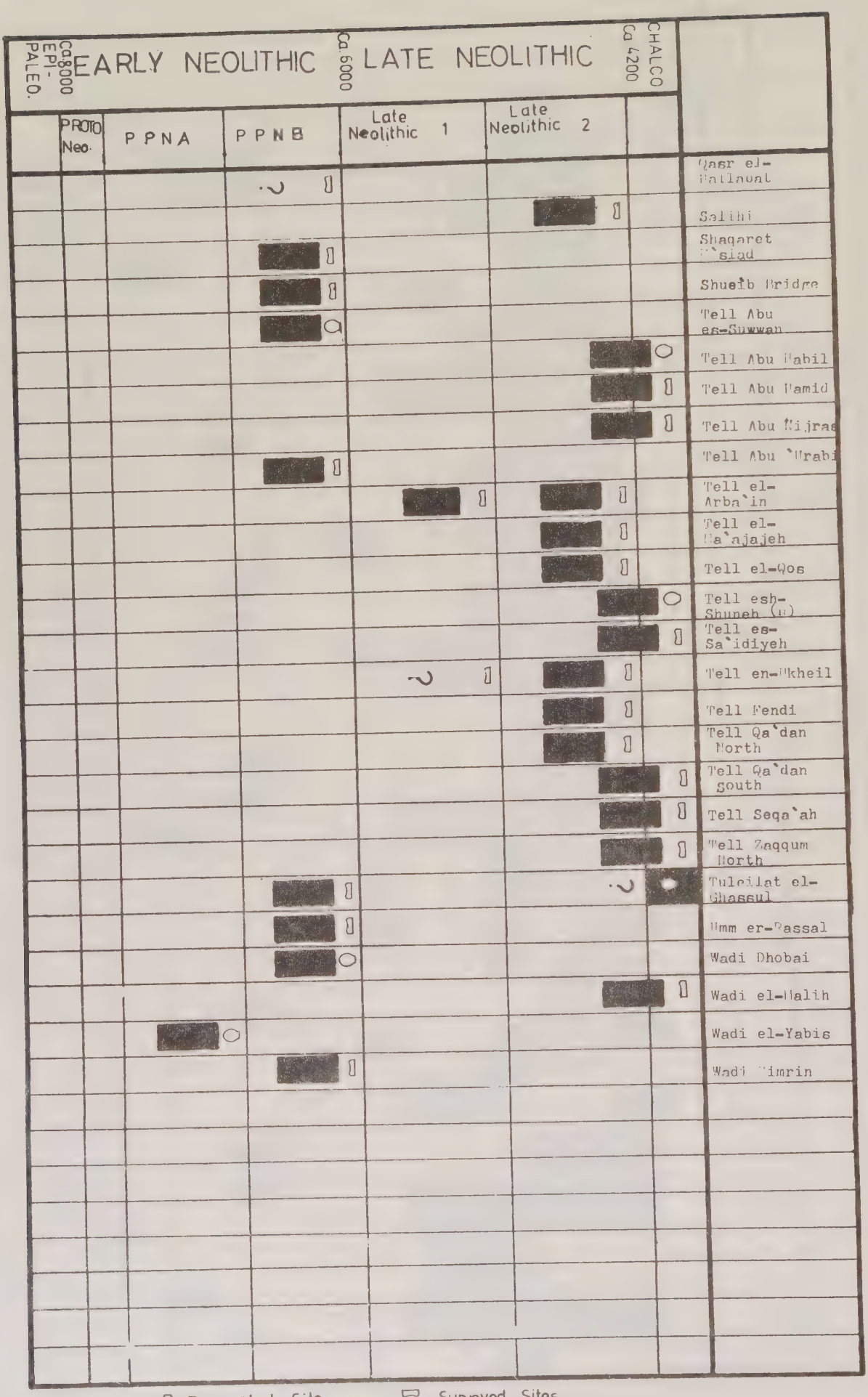
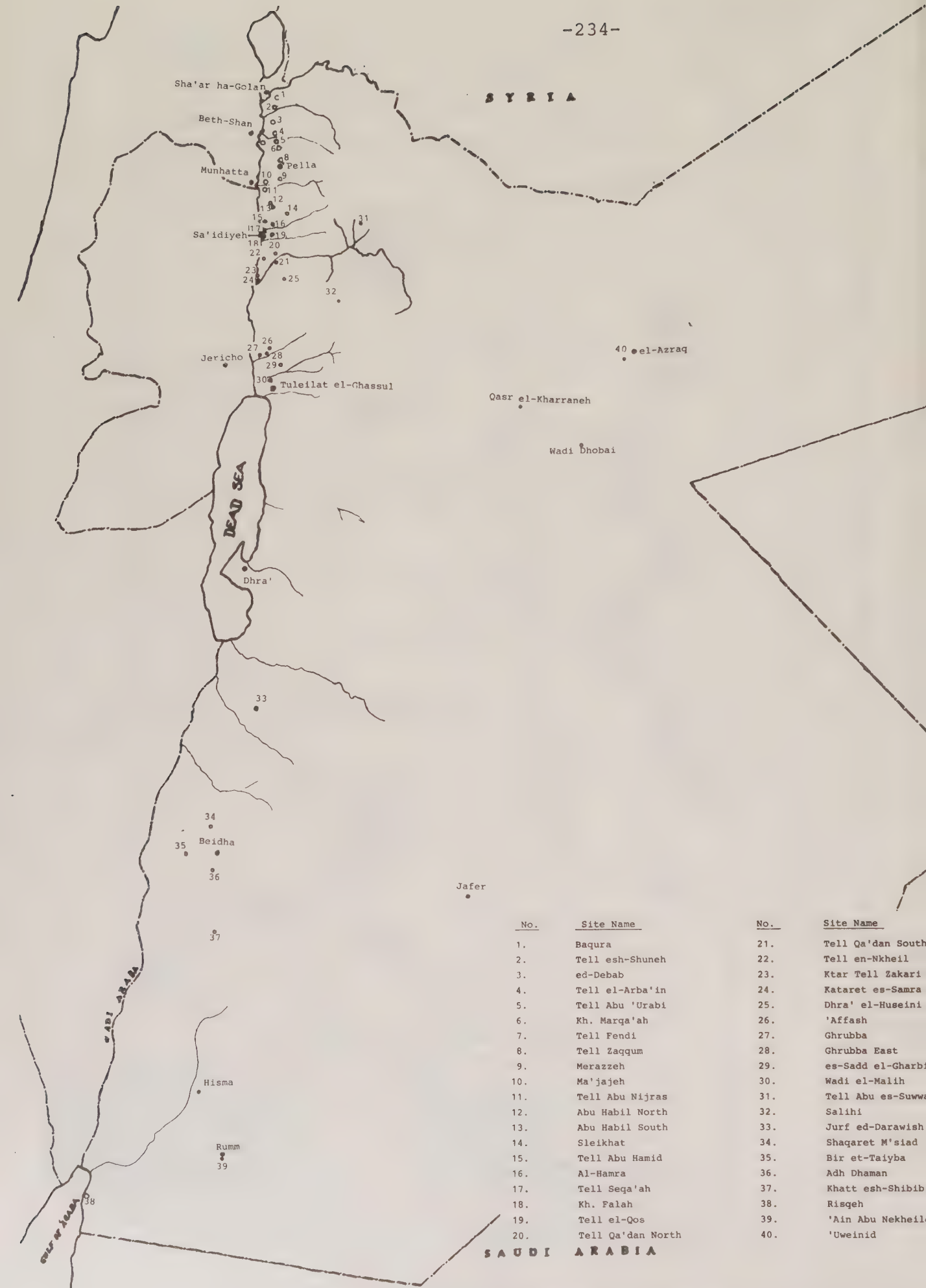



Fig. 70. Chronological table

Fig. 71. Sites surveyed in 1975 and 1976




| No. | Site Name | No. | Site Name |
|---|---|---|---|
| 1. | Baqura | 21. | Tell Qa'dan South |
| 2. | Tell esh-Shuneh | 22. | Tell en-Nkheil |
| 3. | ed-Debab | 23. | Ktar Tell Zakari |
| 4. | Tell el-Arba'in | 24. | Kataret es-Samra |
| 5. | Tell Abu 'Urabi | 25. | Dhra' el-Huseini |
| 6. | Kh. Marqa'ah | 26. | 'Affash |
| 7. | Tell Fendi | 27. | Ghrubba |
| 8. | Tell Zaqqum | 28. | Ghrubba East |
| 9. | Merazzeh | 29. | es-Sadd el-Gharbi |
| 10. | Ma'jajeh | 30. | Wadi el-Malih |
| 11. | Tell Abu Nijras | 31. | Tell Abu es-Suwwa |
| 12. | Abu Habil North | 32. | Salihi |
| 13. | Abu Habil South | 33. | Jurf ed-Darawish |
| 14. | Sleikhat | 34. | Shaqaret M'siad |
| 15. | Tell Abu Hamid | 35. | Bir et-Taiyba |
| 16. | Al-Hamra | 36. | Adh Dhaman |
| 17. | Tell Seqa'ah | 37. | Khatt esh-Shibib |
| 18. | Kh. Falah | 38. | Risqeh |
| 19. | Tell el-Qos | 39. | 'Ain Abu Nekheil |
| 20. | Tell Qa'dan North | 40. | 'Uweinid |

Fig. 72. Neolithic sites found in Jordan

KEY TO THE PLATES

Briefly, let us say a word about the method of pottery plate description used in this study. On the plate description pages information is given in nine columns. The first contains the respective serial numbers of the sherds in correspondence with the figure numbers. Provenance is given in column two: the first number refers to the site, the second to a particular collection bag, and the third to a specific sherd. The third column contains the basic typological designation of the vessel form derived from the sherd. The surface treatment of the sherd is described in the fourth, noting applied or other form of decoration.

The ware designation of the sherd is noted in the next four columns: column 5 provides a loose designation for the core (inner ceramic matrix) color: light, medium or dark, noting also if there were pits or signs of surface cracking (abbreviated as sc). Column 6 provides a general description of the size of the inclusions (grits) within the ceramic matrix: s:small; m:medium; h:hard. Column 8 indicates the color of the ware on its outer surface, utilizing the Munsell soil color code and verbal description.

The column noting parallels to the material contains author's name, year of publication, site name, plate or figure number, and finally photo number.

The pottery sherds and most of the flints were drawn on a 1 to 1 scale and then reduced 1 to 2. Small flint tools were drawn 1 to 1 as they are shown on the plates.

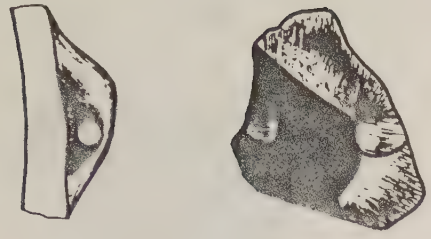
The sites are presented according to the serial numbers given them by the surveyors.

# PLATES

BAQURA Pl. 1

| No. | Ident. | Form | Surf. Treat. | Ware Core | Incl. | Hard. | Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 1. | 13.34.8 | bowl | paint,5R4/4 weak red | --- | m | m | 7.5YR8/2 pinkish white | 1. Loud 1948, Megiddo pls.1:25; 2:24,25.<br>2. de Vaux 1947, Tell el-Far'ah fig.1:15, 16 |
| 2. | 13.34.9 | bowl | slip,10R4/4 weak red | --- | vs | h | 7.5YR8/2 pink | 1. Loud 1948, Megiddo pls.1:25; 2:24,25.<br>2. de Vaux 1947,Tell el-Far'ah fig.1:15, 16. |
| 3. | 13.34.4 | bowl | slip,5R4/4 weak red | --- | vs | h | 10YR7/1 light gray | 1. Loud 1948, Megiddo pls.1:25; 2:24,25.<br>2. de Vaux 1947, Tell el-Far'ah fig.1:15, 16. |
| 4. | 13.34.7 | bowl | paint,7.5R4/6 red | --- | m | m | 7.5YR8/1 pink | --- |
| 5. | 13.33.1 | jar? | rop-moulding | --- | l | m | 7.5YR8/4 pink | 1. Contenson 1960a,Te Tell Abu Habil fig. 23:10.<br>2. Loud 1948, Megiddo pl.2:44-49.<br>3. Kaplan 1958a,Tuleilat Batashi pl.11:5 |
| 6. | 13.35.5 | jar? | --- | dark | l+ straw | m | 7.5YR8/2 pinkish white | 1. Loud 1948, Megiddo pl.1:11. |

Pl. 1



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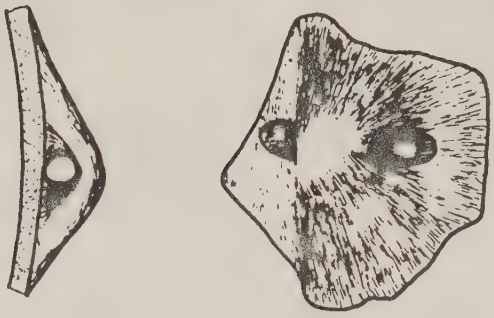

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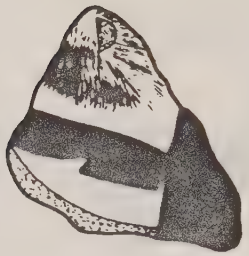

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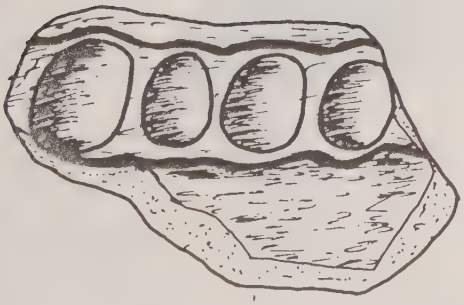

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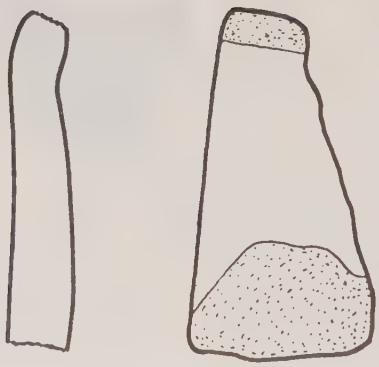
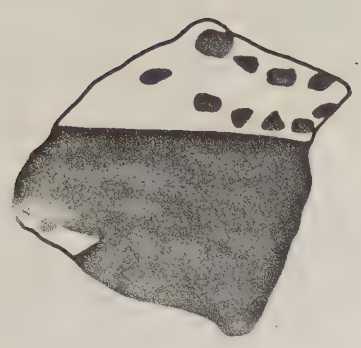


6

Baqura

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 7. | 13.34.10 | ? | paint,10R4/6 red<br>notching | --- | l | m | 7.5YR8/4 pink | --- |
| 8. | 13.34.6 | ? | notching | --- | m | m | 5YR7/4 pink | 1. Ben-Dor 1936,Jericho pl.XXXIII:12.<br>2. Tzori 1958, el-Khirbeh es-Soda pl.IVa. |
| 9. | 13.34.3 | ? | slip,2.5YR6/4 light reddish<br>notching | --- | s | h | 7.5YR8/4 pink | 1. Ben-Dor 1936,Jericho pl.XXXIII:12.<br>2. Tzori 1958, el-Khirbeh es-Soda pl.IVa. |
| 10. | 13.34.2 | ? | paint,7.5R4/6 red | --- | m | m | 7.5YR8/2 pinkish white | 1. Kaplan 1958a,Tuleilat Batashi pls. 7:5,7,11; 9:1,9,10.<br>2. Droop 1935, Jericho pls.XLIV:16-18, 21; XLV:35.<br>3. Perrot 1964, Munhatta pl.XXIV:12,13, 17. |
| 11. | 13.34.11 | ? | paint,10R5/4 weak red | --- | s | h | 7.5YR8/4 pink | 1. Kaplan 1958a,Tuleilat Batashi pls.7: 5,7,11; 9:1,9,10.<br>2. Droop 1935, Jericho pls.XLIV:16-18, 21; XLV:35.<br>3. Perrot 1964, Munhatta pl.XXIV:12,13, 17. |
| 12. | 13.33.12 | ? | paint,5R4/6 red | --- | m | m | 7.5YR8/4 pink | 1. Kaplan 1958a,Tuleilat Batshi pls.7: 5,7,11; 9:1,9,10.<br>2. Droop 1935, Jericho pls.XLIV:16-18, 21; XLV:35.<br>3. Perrot 1964, Munhatta pl.XXIV:12,13, 17. |
| 13. | 13.31.1 | ? | paint,10R4/6 red | --- | s | m | 10YR7/4 very pale brown | 1. Kaplan 1958a,Tuleilat Batshi pls.7: 5,7,11;9:1,9,10.<br>2. Droop 1935, Jericho pls.XLIV:16-18, 21; XLV:35.<br>3. Perrot 1964, Munhatta pl.XXIV:12,13, 17. |
| 14. | 13.31.2 | ? | paint,7.5R5/8 red | --- | l | m | 7.5YR8/2 pinkish white | 1. Kaplan 1958a,Tuleilat Batshi pls.7: 5,7,11; 9:1,9,10.<br>2. Ben-Dor 1935,Jericho pls.XLIV:16-18, 21; XLV:35.<br>3. Perrot 1964, Munhatta pl.XXIV:12,13, 17. |

Pl. 2



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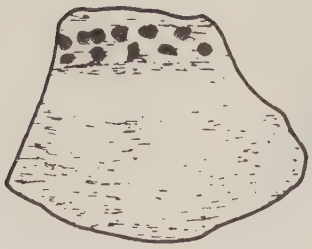

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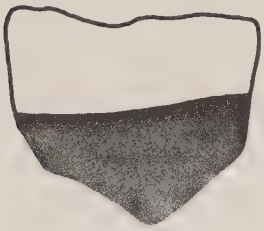

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Baqura

TELL EL-ARBA'IN Pl. 3

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 34.98.1 | ? | paint,7.5R4/4 weak red<br>herring-bone incisions | --- | s | m | 10YR8/4 very pale brown | 1.Glueck 1951, Tell es-Sa'idiyeh pl. 149:9,10.<br>2.Loud 1948,Megiddo pl.2:40-42.<br>3.Droop 1935,Jericho pl.XLI:22.<br>4.Ben-Dor 1936,Jericho pl.XXXIII:18.<br>5.Fitzgerald 1934, Beth-Shan fig.1.<br>6.Fitzgerald 1935, Beth-Shan pl.III:17, 18.<br>7.Stekelis 1950-51, Sha'ar ha-Golan pl.i.<br>8.Kaplan 1958b,Wadi Rabbah fig.4:3.<br>9.Perrot 1964,Munhatta fig.4:10-13.<br>10.Perrot 1966,Munhatta fig.6:2. |
| 2. | 34.97.5 | ? | paint,7.5R4/4 weak red | --- | s | m | 10YR8/3 very pale brown | 1.Mellaart 1956, Ghrubba figs.5,6.<br>2.Loud 1948, Megiddo pl.2:32-36.<br>3.Kaplan 1958a,Tuleilat Batashi pl.7:7 |
| 3. | 34.97.4 | ? | paint,7.5R5/6 red | --- | s | m | 5YR7/4 pink | 1.Mellaart 1956, Ghrubba figs.5,6.<br>2.Loud 1948,Megiddo pl.2:32-36.<br>3.Kaplan 1958a,Tuleilat Batashi pl.7:7. |
| 4. | 34.97.2 | ? | paint,2.5YR6/6 light red | --- | s | m | 5YR7/3 pink | 1.Mellaart 1956, Ghrubba figs 5,6.<br>2.Loud 1948,Megiddo pl.2:32-36.<br>3.Kaplan 1958a,Tuleilat Batashi pl.7:7. |
| 5. | 34.98.6 | ? | paint,10R6/4 pale red | --- | m | h | 7.5YR8/2 pinkish white | 1.Mellaart 1956, Ghrubba figs.5,6.<br>2.Loud 1948,Megiddo pl.2:32-36.<br>3.Kaplan 1958a, Tuleilat Batashi pl.7:7. |
| 6. | 34.97.3 | ? | paint,2.5YR5/4 reddish brown | --- | m | m | 5YR8/3 pink | 1.Mellaart 1956, Ghrubba figs.5,6.<br>2.Loud 1948,Megiddo pl.2:32-36.<br>3.Kaplan 1958a,Tuleilat Batashi pl.7:7. |

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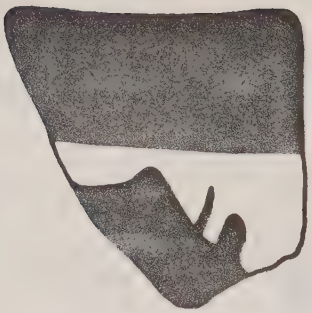

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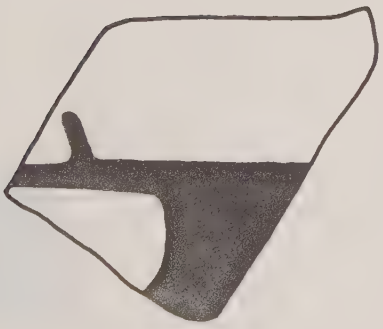

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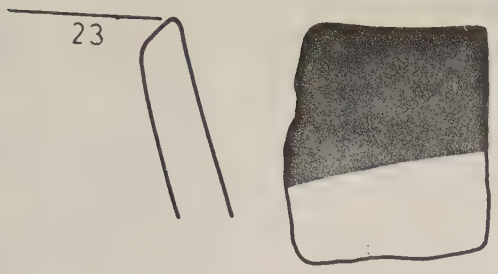
6

Tell el-Arba'in

TELL FENDI Pl. 4

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 38.104.5 | cooking pot | paint,10R4/6 red | --- | l | m | 5YR7/3 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.4:6.<br>2.Contenson 1964,Tell Fendi pl.XI:7.<br>3.Ben-Dor 1936,Jericho pl.XXXII:34C. |
| 2. | 38.104.4 | bowl | paint,5R4/6 red | dark | s | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a,Tell esh-Shuneh fig.3:20.<br>2.Contenson 1960a,Tell Abu Habil fig.26:1.<br>3.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:17.<br>4.Loud 1948,Megiddo pl.2:4.<br>5.Ben-Dor 1936, Jericho pl.XXXII:34B. |
| 3. | 38.104.2 | jar | paint,5R5/6 red | dark | l | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.12:5.<br>2.Contenson 1960a,Tell Abu Habil fig.24:1. |
| 4. | 38.104.8 | jar | paint,7.5R4/6 red | light | m | m | 7.5YR8/4 pink | 1.Perrot 1966,Munhatta fig.6:19?. |
| 5. | 38.104.1 | ? | paint,10R5/6 red | --- | l | m | 10YR8/3 very pale brown. | 1.Loud 1948, Megiddo pl.2:32-36 |
| 6. | 38.104.7 | ? | paint,7.5R5/6 red | --- | s | h | 7.5YR8/2 pinkish white | 1.Loud 1948, Megiddo pl.2:32-36. |
| 7. | 38.104.3 | ? | paint,5R4/6 red | --- | s | h | 7.5YR8/4 pink | 1.Loud 1948, Megiddo pl.2:32-36. |
| 8. | 38.104.6 | ? | paint,5R4/4 weak red | --- | l | m | 7.5YR8/4 pink | 1.Loud 1948,Megiddo pl.2:32-36. |

Pl. 4

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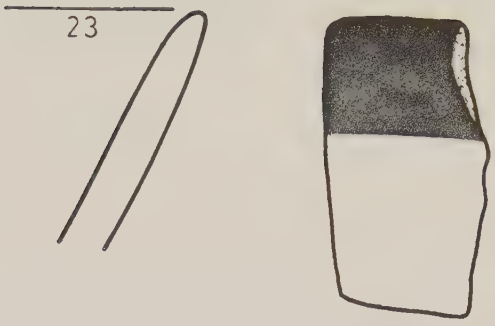


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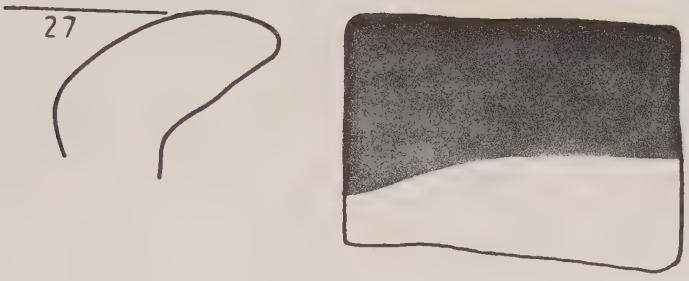


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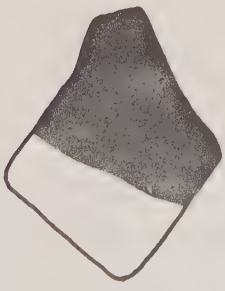

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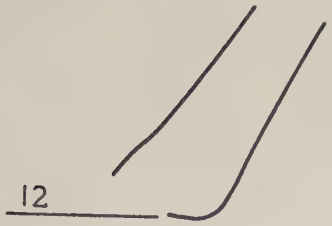
8

Tell Fendi

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 45.119.1 | jar? | --- | --- | l | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a, Tell esh-Shuneh fig.8:3.<br>2.Contenson 1960a, Tell Abu Habil fig.25:1.<br>3.Kaplan 1958a, Tuleilat Batashi pl. 11:2.<br>4.Loud 1948,Megiddo pl.2:20. |
| 2. | 45.119.2 | jar | --- | dark | l | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a, Tell esh-Shuneh fig.7:3. |
| 3. | 58.150.3 | hole-mouth jar | --- | light | m | m | 7.5YR8/4 pink | 1.Contenson 1960a, Tell Abu Habil fig.26:9.<br>2.Loud 1948,Megiddo pl.1:20. |
| 4. | 58.150.4 | jar? | --- | --- | s | so | 5Y8/3 pale yellow | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:19.<br>2.Kaplan 1958a,Tuleilat Batashi pls.7:2 3,6; 10:23.<br>3.Loud 1948,Megiddo pl.1:14,15,24.<br>4.Ben-Dor 1936, Jericho pl.XXX:21.<br>5.de Vaux 1947,Tell el-Far'ah fig.1:28, 29. |
| 5. | 58.150.1 | cornet | --- | --- | m | h | 5YR7/4 pink | 1.Kaplan 1958b,Wadi Rabbah fig.4:11. |

# Pl. 5

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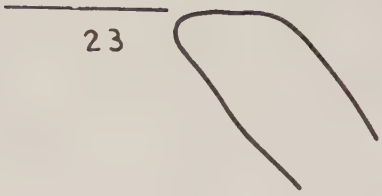


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4

5

(1-2) Khirbt Marqa'ah.

(3-5) Tell Zaqqum (North)

TELL EL-MA'AJAJEH Pl. 6

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 61.155.2 | jar | --- | --- | l | so | 10YR8/3 very pale brown | 1.Contenson 1960a, Tell esh-Shuneh fig.8:11.<br>2.Stekelis 1950-51, Sha'ar ha-Golan fig.13:4. |
| 2. | 61.155.3 | jar | --- | --- | s | h | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.8:9. |
| 3. | 61.155.1 | jar | paint,10R4/3 weak red | --- | l | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a,Tell esh-Shuneh fig.7:6.<br>2.Fitzgerald 1935, Beth-Shan pl.II:23. |
| 4. | 61.155.5 | jar | paint,5R3/3 dusky red | --- | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-shuneh fig.7:4. |
| 5. | 61.155.6 | ? | paint,10R5/6 red | --- | s | m | 7.5YR8/2 pinkish white | 1.Mellaart 1956, Ghrubba fig.5:62.<br>2.Kaplan 1958a, Tuleilat Batashi pl.7:7. |
| 6. | 61.155.7 | ? | paint,7.5R4/6 red | --- | s | h | 2.5Y8/2 white | 1.Mellaart 1956, Ghrubba fig.5:62. |
| 7. | 61.155.4 | ? | paint,10R6/6 light red | --- | s | m | 2.5Y8/2 white | 1.Mellaart 1956, Ghrubba fig.5:62. |

# Pl. 6

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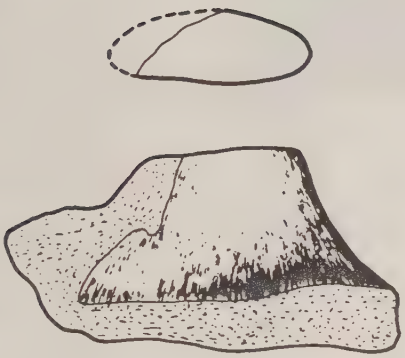

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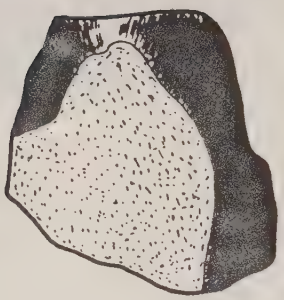

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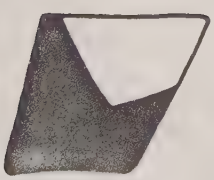

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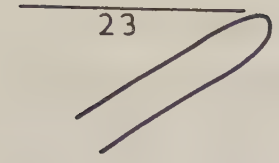
7

Tell el-Ma'ajajeh

TELL ABU NIJRAS Pl. 7

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 62.158.9 | bowl | slip,7.5R5/6 red | --- | l | m | 5YR7/4 pink | 1.Glueck 1951,Tell Abu Habil pl.121: 14. |
| 2. | 62.158.10 | bowl | paint,10R4/6 red | --- | l | h | 5YR8/3 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.3:7<br>2.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:1<br>3.Loud 1948,Megiddo pl.2:2. |
| 3. | 62.158.11 | jar | slip,10R4/4 weak red | --- | l | so | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.4:2.<br>2.Contenson 1960a, Tell Abu Habil fig.23:10.<br>3.Loud 1948,Megiddo pl.1:11. |
| 4. | 62.158.8 | jar | paint,2.5R6/4 light reddish brown | --- | l | m | 10YR8/4 very pale brown | 1.Contenson 1960a, Tell esh-Shuneh fig.4:9.<br>2.Loud 1948,Megiddo pl.2:3? |
| 5. | 62.158.3 | ? | paint,7.5R5/6 red | dark | l | so | 5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:46-48. |
| 6. | 62.158.18 | ? | paint,7.5R5/6 red | --- | l | so | 5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:46-48. |
| 7. | 62.157.12 | ? | slip,7.5R4/6 red<br>rope-moulding | --- | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.4:13.<br>2.Contenson 1960a, Tell Abu Habil fig.23:9.<br>3.Loud 1948,Megiddo pl.2:46-48.<br>4.de Vaux 1947,Tell el-Far'ah fig.1:9 |
| 8. | 62.157.15 | ? | slip,10R5/4 weak red<br>rope-moulding | --- | l | m | 10YR7/3 very pale brown | 1.Contenson 1960a, Tell Abu Habil fig.23:8.<br>2.Loud 1948,Megiddo pl.2:46-48.<br>3.de Vaux 1947,Tell el-Far'ah fig.1: |
| 9. | 62.157.6 | bowl? | --- | --- | s | h | 7.5YR6/4 light brown | 1.Glueck 1951,Tell Abu Habil pl.121 |
| 10. | 62.157.5 | jar | --- | --- | l | m | 10YR7/3 very pale brown | 1.Loud 1948,Megiddo pl.1:14. |
| 11. | 62.158.4 | jar | --- | light | s | h | 10R6/6 light red | 1.Glueck 1951,Tell Abu Habil pl.121 |
| 12. | 62.157.7 | jar | slip,2.5YR5/2 weak red | --- | l | m | 10YR7/3 very pale brown | 1.Glueck 1951,Tell Abu Habil pl.121 11. |

Pl. 7

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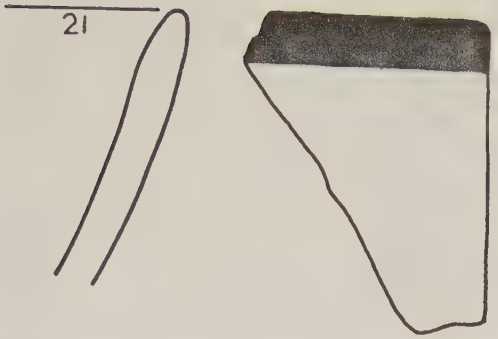


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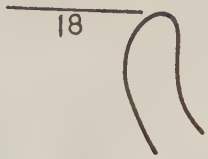


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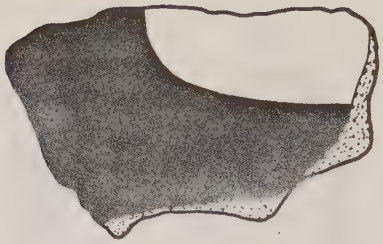

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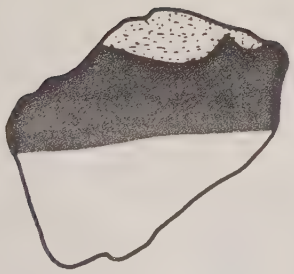

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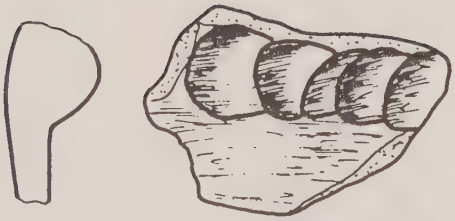

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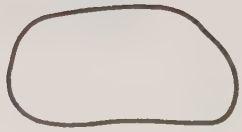
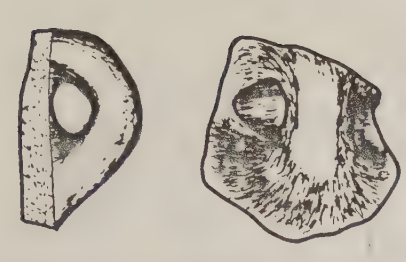


12

Tell Abu Nijras

TELL ABU NIJRAS Pl. 8

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 13. | 62.157.13 | bowl | slip,10R6/6 light red | --- | s | m | 5YR8/3 pink | 1.Glueck 1951,Tell Abu Habil pl.12:4.<br>2.Droop 1935,Jericho pl.XLV:2. |
| 14. | 62.158.2 | bowl | --- | --- | l | m | 10R5/4 weak red | 1.Droop 1935,Jericho pl.XLV:2. |
| 15. | 62.158.14 | bowl | --- | --- | m | so | 10YR8/3 very pale brown | 1.Droop 1935,Jericho pl.XLV:1. |
| 16. | 62.157.16 | bowl | wash | --- | l | m | 2.5YR6/4 light reddish brown | 1.Loud 1948, Megiddo pl.1:27 |
| 17. | 62.158.17 | bowl | --- | --- | s | h | 10YR7/2 light gray | 1.Droop 1935,Jericho pl.XLV:4. |
| 18. | 62.157.1 | bowl | --- | --- | l | m | 5YR7/4 pink | 1.de Vaux 1947,Tell el-Far'ah fig.1:19. |



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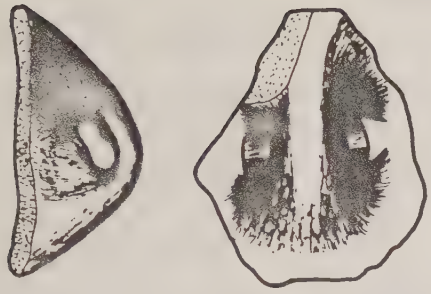

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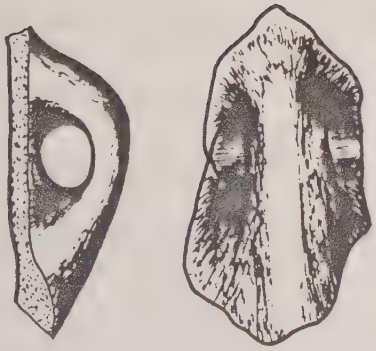

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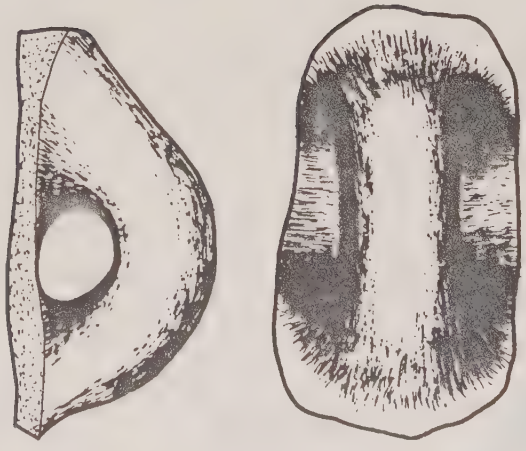

18

Tell Abu Nijras

TELL ABU HABIL Pl. 9

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 66.170.1 | spoon | --- | --- | l | h | 7.5YR8/2 pinkish white | 1.Mellaart 1956, Chrubba fig.4:54-55.<br>2.de Vaux 1948,Tell el-Far'ah fig.1:4. |
| 2. | 66.168.25 | bowl | slip,2.5YR5/4 reddish brown | --- | s | m | 10YR8/3 very pale brown | 1.Contenson 1960a,Tell esh-Shuneh fig.3:13<br>2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:16.<br>3.Stekelis 1950-51, Sha'ar ha-Golan fig.13:10.<br>4.Loud 1948,Megiddo pl.2:7. |
| 3. | 66.169.28 | bowl | --- | pitted | l | m | 5YR7/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.25:5<br>2.Contenson 1960a,Tell esh-Shuneh fig.3:6,8.<br>3.Stekelis 1950-51,Sha-'ar ha-Golan fig.13:9<br>4.Kaplan 1958b,Wadi Rabbah fig.4:5.<br>5.de Vaux 1961,Tell el-Far'ah fig.1:29. |
| 4. | 66.169.22 | bowl | paint,2.5YR5/6 red | --- | l | m | 5YR8/4 pink | 1.Ben-Dor 1936,Jericho pl.XXXII:34B.<br>2.Loud 1948,Megiddo pl.2:33. |
| 5. | 66.168.23 | jar | wash | --- | s | h | 5YR7/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.26:12.<br>2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.33:14.<br>3.Mellaart 1956,Ghrubba fig.4:44 |
| 6. | 66.168.9 | jar | slip,10R5/6 red<br>wash | pitted | l | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.3:12.<br>2.Ben-Dor 1936,Jericho pl.XXXII:23A.<br>3.de Vaux 1961,Tell el-Far'ah fig.1:24. |
| 7. | 66.168.8 | jar | --- | --- | m | m | 7.5YR8/4 pink | 1.de Vaux 1961,Tell el-Far'ah fig.1:24.<br>2.Fitzgerald 1935,Beth-shan pl.I:19. |
| 8. | 66.169.29 | jar | slip,10R4/6 red<br>wash | --- | s | h | 7.5YR8/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.23:10.<br>2.Contenson 1960a,Tell esh-Shuneh fig.4:2.<br>3.Fitzgerald 1935,Beth-shan pl.I:22. |
| 9. | 66.169.30 | jar | paint,7.5R4/4 weak red | pitted | l | m | | 1.Contenson 1960a,Tell Abu Habil fig.25:10. |

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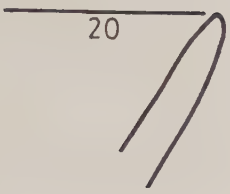


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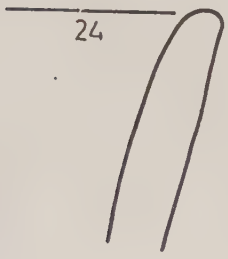


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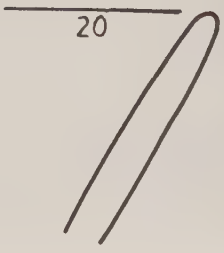

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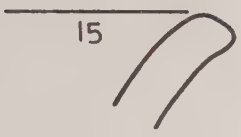


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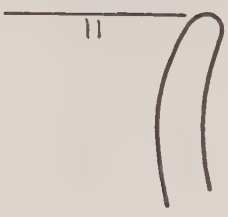


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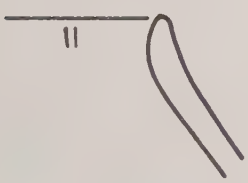


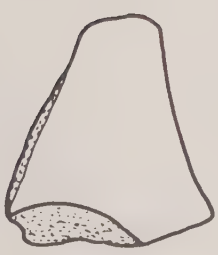

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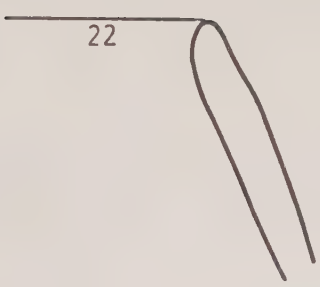
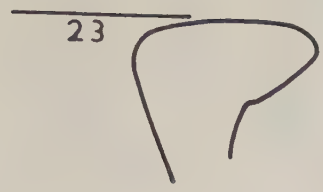


9

Tell Abu Habil

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 10. | 66.169.26 | Krater | slip,7.5R4/6 red | pitted | 1 | m | 7.5YR8/4 pink | 1.Kaplan 1958a, Tuleilat Batashi pl.10:4.<br>2.Loud 1948,Megiddo pl.2:13.<br>3.de Vaux 1947,Tell el-Far'ah fig.1:3. |
| 11. | 66.168.24 | krater | slip,7.5R4/6 red | --- | 1 | h | 7.5YR8/4 pink | 1.Glueck 1951,Tell Abu Habil pl.122:2.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:3. |
| 12. | 66.171.2 | krater | slip,10R5/6 red | --- | 1 | h | 5YR8/3 pink | 1.Loud 1948,Megiddo pl.2:14. |
| 13. | 66.175.25 | krater | nail-incising | sc | 1 | m | 5YR7/4 pink | 1.Glueck 1951,Tell Abu Habil pl.122:5 |
| 14. | 66.169.16 | jar | slip,5R5/6 red | --- | 1 | m | 7.5R6/4 pale red exterior; 7.5YR8/4 pink interior | 1.Contenson 1960a, Tell esh-Shuneh fig.5:1<br>2.Glueck 1951,Tell Abu Habil pl.121: 24.<br>3.Ben-Dor 1936,Jericho pl.XXXII:23B.<br>4.de Vaux 1947,Tell el-Far'ah fig.1:1.<br>5.Loud 1948,Megiddo pl.1:5. |
| 15. | 66.169.15 | jar | slip,5R5/6 red | --- | 1 | m | 7.5YR6/4 pale red exterior; 7.5YR8/4 pink interior. | 1.Contenson 1960a, Tell esh-Shuneh fig.5:1.<br>2.Glueck 1951,Tell Abu Habil pl.121: 24.<br>3.Ben-Dor 1936,Jericho pl.XXXII:23B.<br>4.de Vaux 1947,Tell el-Far'ah fig.1:1.<br>5.Loud 1948,Megiddo pl.1:5. |
| 16. | 66.168.34 | jar | --- | --- | 1 | m | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.8:9.<br>2.Perrot 1964,Munhatta fig.3:1. |
| 17. | 66.171.35 | jar | slip,7.5R4/6 red<br>wet smoothed | --- | 1 | m | 10YR7/3 very pale brown | 1.Contenson 1960a, Tell esh-Shuneh fig.8:12<br>2.Perrot 1964,Munhatta fig.5:27.<br>3.Kaplan 1958b,Wadi Rabbah fig.5:10. |
| 18. | 66.169.33 | bowl? | --- | --- | 1 | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.8:13.<br>2.Ben-Dor 1936,Jericho pl.XXXIII:19.<br>3.Perrot 1964,Munhatta fig.6:14. |
| 19. | 66.170.32 | jar | --- | --- | 1 | so | 7.5YR8/2 pinkish white | 1.Contenson 1960, Tell esh-Shuneh fig.8:3.<br>2.Loud 1948,Megiddo pl.2:18. |

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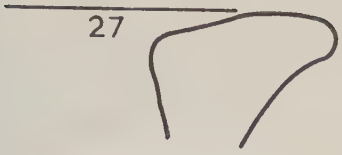


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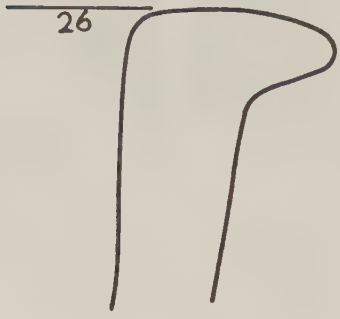


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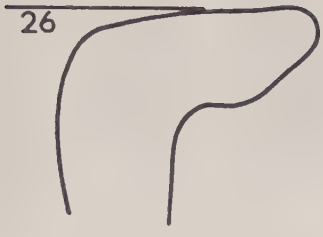

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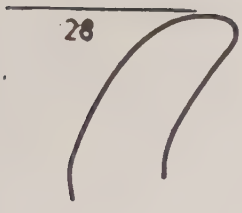


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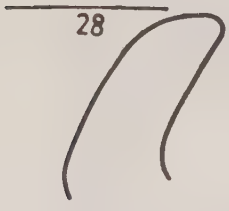


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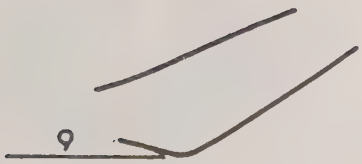


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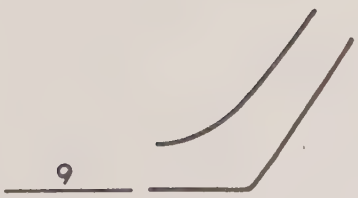


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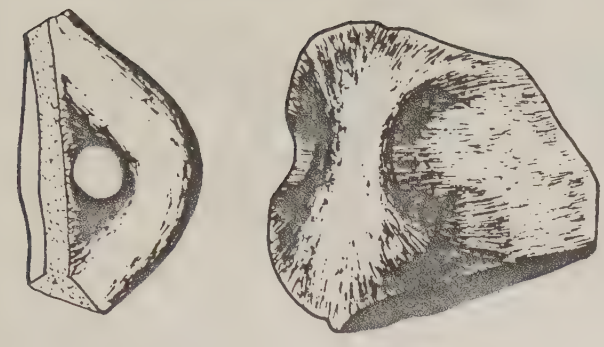
19

Tell Abu Habil

TELL ABU HABIL Pl.11

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 20. | 66.168.6 | bowl | paint,5YR4/4 reddish brown wash | --- | m | m | 7.5YR8/4 pink | 1.Fitzgerald 1935, Beth-Shan pl.II:25.<br>2.Perrot 1964,Munhatta fig.6:3 |
| 21. | 66.168.10 | bowl | paint,5R3/6 dark red | --- | l | m | 7.5YR8/4 pink | 1.Fitzgerald 1935, Beth-Shan pl.II:27.<br>2.Perrot 1964,Munhatta fig.6:3. |
| 22. | 66.168.11 | jar | --- | light pitted | l | so | 5YR7/4 pink | 1.Glueck 1951,Tell Abu Habil pls.12:3; 121:3.<br>2.Contenson 1960a,Tell Abu Habil fig.26:16. |
| 23. | 66.170.21 | bowl | paint,7.5R4/6 red | --- | l | h | 5YR7/4 pink | 1.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:6.<br>2.Perrot 1966,Munhatta fig.6:3. |
| 24. | 66.171.14 | jar | paint,7.5R4/6 red | sc | l | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.7:4.<br>2.de Vaux 1948,Tell el-Far'ah fig.1:3.<br>3.de Vaux 1961,Tell el-Far'ah fig.1:20. |
| 25. | 66.171.7 | jar | slip,10R5/6 red | --- | l | m | 5YR7/4 pink | 1.Glueck 1951,Tell Abu Habil pl.12:11.<br>2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:5. |
| 26. | 66.169.13 | jar | --- | pitted | l | m | 5YR8/4 pink | 1.Glueck 1951,Tell Abu Habil pl.12:11.<br>2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:5. |

Pl.11



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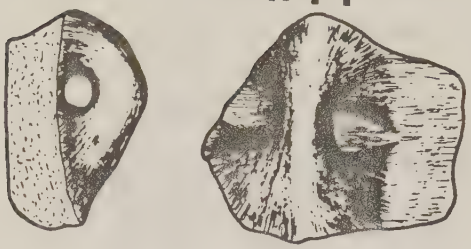

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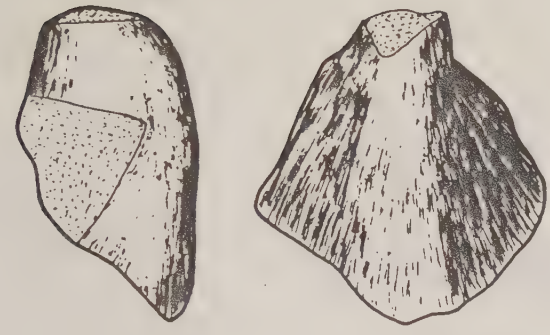

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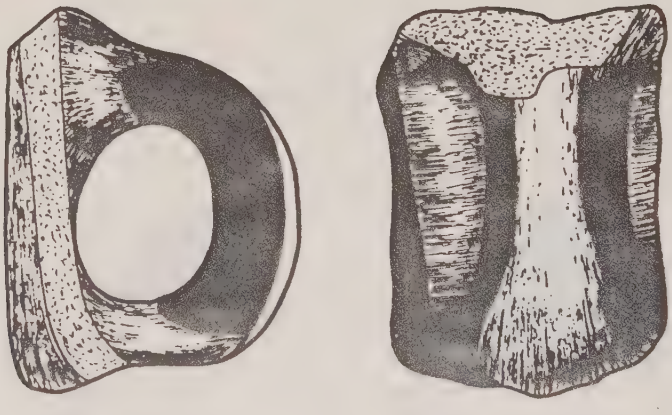

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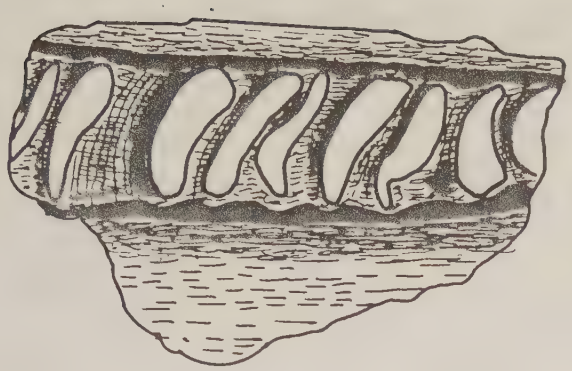
26

Tell Abu Habil

| No. | Ident. | Form | Surf. Treat. | Ware: Core | Ware: Incl. | Ware: Hard. | Ware: Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 27. | 66.169.19 | --- | slip,5R4/6 red<br>rope-moulding | light | 1 | so | 7.5YR8/4 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.34:10, 11.<br>2.Contenson 1960a, Tell Abu Habil figs.25:20;26:17.<br>3.Glueck 1951,Tell Abu Habil pl.122:6, 7,9.<br>4.de Vaux 1961,Tell el-Far'ah fig.1:11. |
| 28. | 66.170.12 | --- | rope-moulding<br>wash | pitted | 1 | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a, Tell Abu Habil figs.25:19;23:8.<br>2.Fitzgeral 1935,Beth-Shan pl.I:24-26.<br>3.de Vaux 1947,Tell el-Far'ah fig.1:9, 10,30.<br>4.de Vaux 1961,Tell el-Far'ah fig.1:13, 14. |
| 29. | 66.170.3 | --- | nail-incising | --- | 1 | m | 5YR7/4 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.34:10, 11.<br>2.Contenson 1960a, Tell Abu Habil figs.25:20;26:17.<br>3.Glueck 1951,Tell Abu Habil pl.122:6, 7,9.<br>4.de Vaux 1961,Tell el-Far'ah fig.1:11. |
| 30. | 66.168.4 | --- | rope-moulding | --- | 1 | m | 5YR8/3 pink | 1.Contenson 1960a,Te Tell esh-Shuneh fig.4:13.<br>2.Contenson 1960a, Tell Abu Habil figs.23:9;25:18.<br>3.de Vaux 1947,Tell el-Far'ah fig.1:9, 10,30.<br>4.de Vaux 1953,Mura-bba'at fig.1:23.<br>5.de Vaux 1961,Tell el-Far'ah fig.1:13, 14. |
| 31. | 66.171.20 | --- | rope-moulding<br>slip,10R6/4 pale red | --- | 1 | m | 7.5YR8/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.25:20<br>2.de Vaux 1961,Tell el-Far'ah fig.1:11 |
| 32. | 66.169.5 | --- | nail-incising | sc | 1 | so | 10R6/6 light red | 1.Glueck 1951,Abu Habil pl.122:6,7,9.<br>2.de Vaux 1961,Tell el-Far'ah fig.1:11. |
| 33. | 66.168.18 | --- | paint,2.5YR5/4 reddish brown | --- | 1 | m | 5YR8/3 pink | 1.Contenson 1960a,Abu Habil fig.24:2,5,6 |
| 34. | 66.168.17 | --- | paint,5YR4/4 reddish brown | --- | s | h | 7.5YR8/2 pinkish white | 1.Contenson 1960a,Abu Habil fig.24:2,5,6 |



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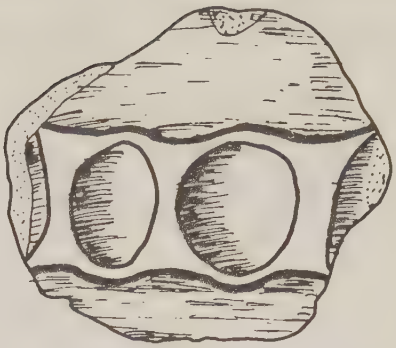

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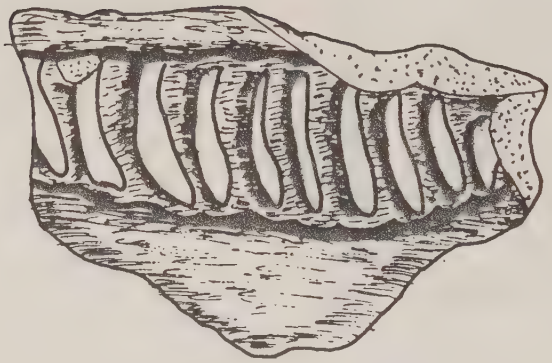

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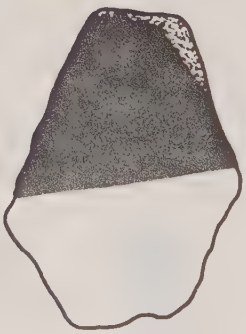


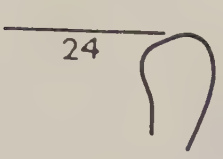
34

Tell Abu Habil

ED-DEBAB Pl.13

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 73.189.11 | bowl | slip,10R4/6 red | --- | s | m | 7.5YR8/4 pink | 1.Kaplan 1958a,Tulei-lat Batashi pl.10:2<br>2.Fitzgerald 1935, Beth-Shan pl.I:24. |
| 2. | 73.190.2 | cook-ing pot | herring-bone incising | --- | s | h | 7.5YR8/4 pink | 1.Stekelis 1950-51, Sha'ar ha-Golan pl.i.<br>2.Kaplan 1958b,Wadi Rabbah fig.4:3.<br>3.Perrot 1964,Munhatta pl.XXIV:3. |
| 3. | 73.194.8 | bowl | paint,5R4/6 red | --- | s | h | 10YR8/3 very pale brown | 1.Kaplan 1958b,Wadi Rabbah fig.4:10.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:13.<br>3.Droop 1935,Jericho pl.XLV:1-6. |
| 4. | 73.190.3 | bowl | paint,7.5R4/4 weak red | --- | s | h | 7.5YR8/4 pink | 1.de Vaux 1947,Tell el-Far'ah fig.1:14.<br>2.Droop 1935,Jericho pl.XLV:1-6. |
| 5. | 73.193.7 | bowl | --- | --- | l | m | 7.5YR8/2 pinkish white | 1.de Vaux 1947,Tell el-Far'ah fig.1:13.<br>2.Droop 1935, Jericho pl.XLV:1-6. |
| 6. | 73.191.6 | jar | --- | --- | l | h | 7.5YR8/2 pinkish white | 1.Contenson 1960a,Tell Abu Habil fig.26:16.<br>2.Loud 1948,Megiddo pl.2:24.<br>3.Kaplan 1958b,Wadi Rabbah fig.4:12. |

# Pl. 13

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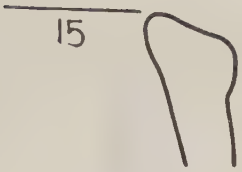


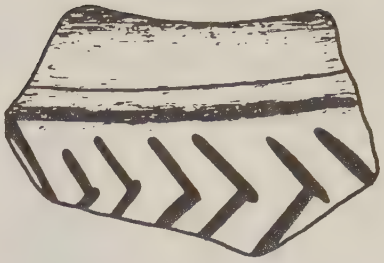

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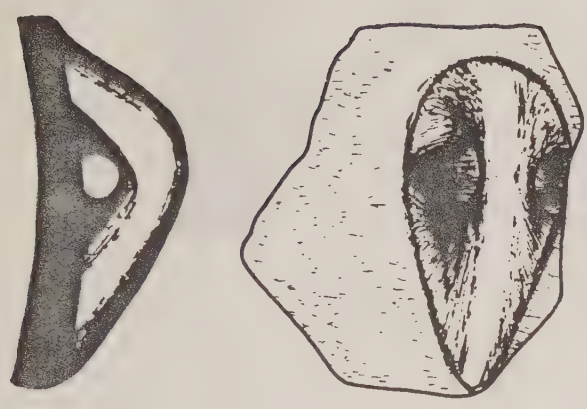

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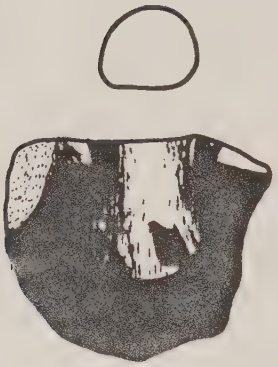

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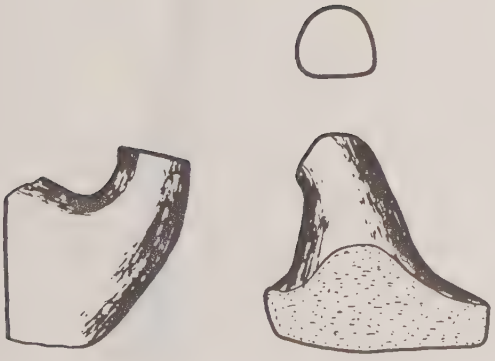

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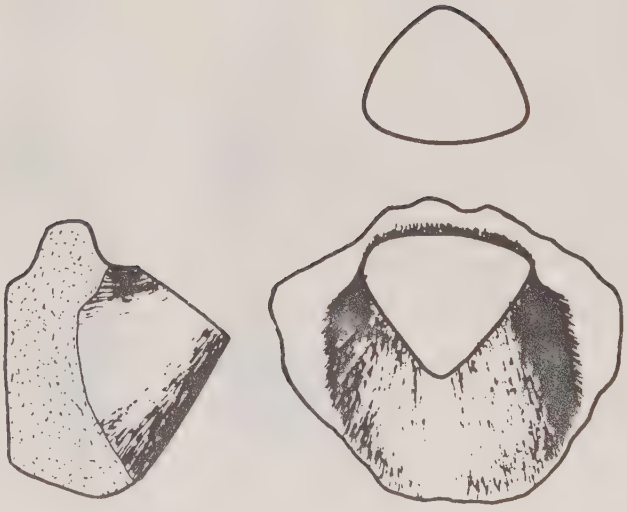
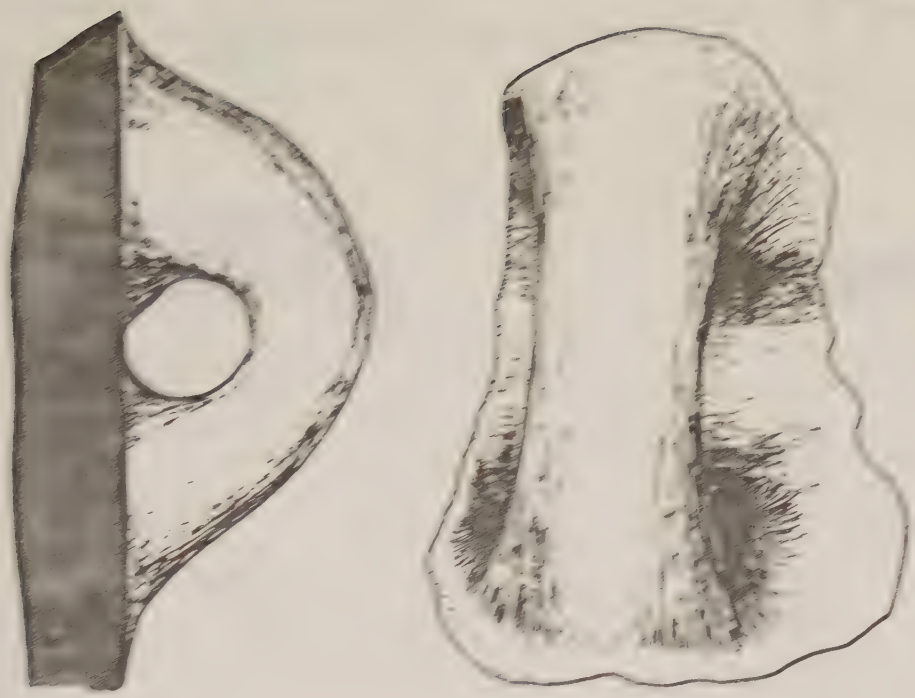


6

ed-Debab

ED-DEBAB Pl. 14

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 7. | 73.191.9 | jar | --- | --- | m | m | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.5:2. |
| 8. | 73.190.10 | jar | --- | --- | 1 | m | 10R4/1 dark reddish | 1.Contenson 1960a, Tell Abu Habil fig.23:12.<br>2.Ben-Dor 1936, Jericho pl.XXXII:27. |



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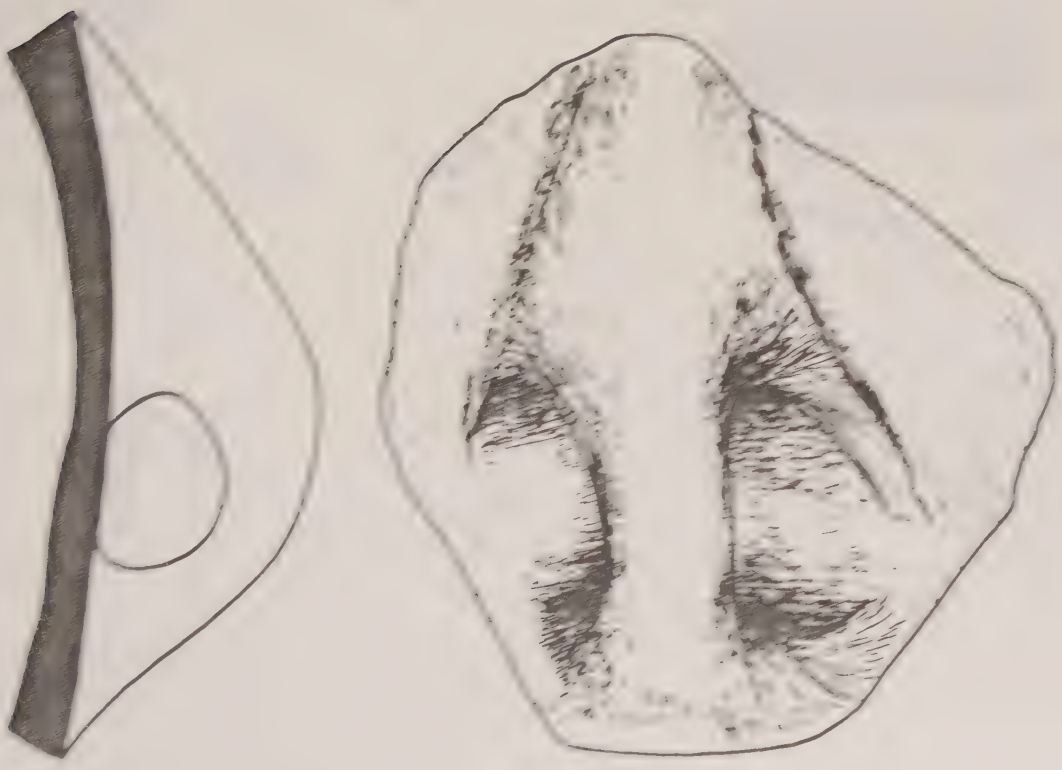
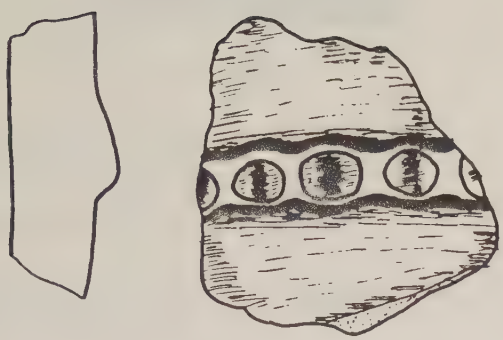


8

ed-Debab

ED-DEBAB Pl. 15

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 9. | 73.189.1 | --- | rope-moulding<br>wet-smoothed | --- | m | m | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.4:13-15.<br>2.Contenson 1960a,Tell Abu Habil fig.23:10<br>3.Loud 1948,Megiddo pl.2:46.<br>4.Fitzgerald 1935, Beth-Shan pl.I:24-26<br>5.de Vaux 1947,Tell el-Far'ah fig.1:30. |
| 10. | 73.191.12 | --- | paint,7.5R4/6 red | --- | m | m | 7.5YR8/4 pink | 1.Kaplan 1958a, Tuleilat Batshi pl.2:35.<br>2.Loud 1948,Megiddo pl.2:35. |
| 11. | 73.191.5 | --- | paint,7.5R4/4 weak red<br>wash | --- | l | m | 5YR8/3 pink | 1.Kaplan 1958a,Tuleilat Batshi pl.7:7.<br>2.Loud 1948,Megiddo pl.2:35. |
| 12. | 73.190.4 | --- | paint,7.5R5/6 red | dark | m | m | 7.5YR8/2 pinkish white | 1.Kaplan 1958a,Tuleilat Batashi pl.7:7.<br>2.Loud 1948,Megiddo pl.2:35. |
| 13. | 73.191.13 | --- | paint,2.5YR4/8 red | --- | m | m | 7.5YR8/4 pink | 1.Kaplan 1958a,Tuleilat Batashi pl.7:7.<br>2.Loud 1948,Megiddo pl.2:35. |
| 14. | 73.190.14 | --- | paint,5R3/3 dusky red<br>wash | --- | s+ straw | m | 7.5YR8/4 pink | 1.Kaplan 1958a,Tuleilat Batshi pl.7:7.<br>2.Loud 1948,Megiddo pl.2:35. |



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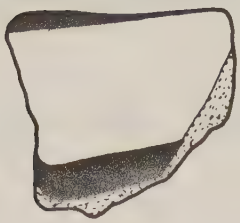

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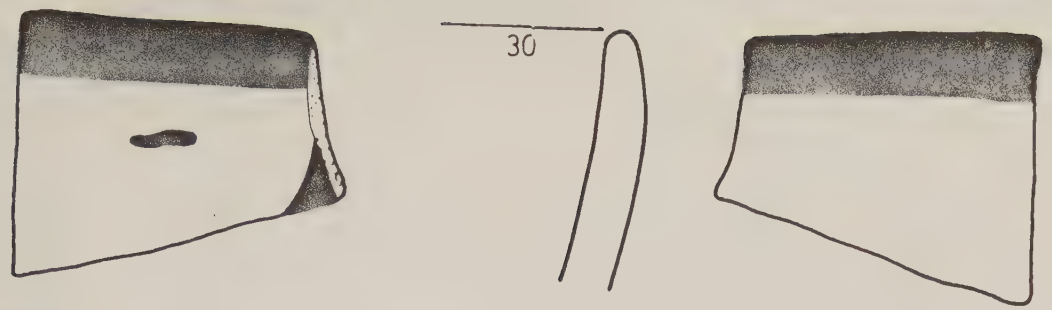
14

ed-Debab

TELL ABU HAMID Pl. 16

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 85.221.21 | bowl | paint,5R4/4 weak red | --- | m | h | 5YR7/3 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.3:9.<br>2.Loud 1948,Megiddo pl.2:1. |
| 2. | 85.220.26 | bowl | paint,7.5R5/6 red | --- | l | m | 5YR7/3 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.3:20.<br>2.Loud 1948,Megiddo pl.2:6. |
| 3. | 85.222.27 | bowl | --- | --- | l | m | 5YR8/4 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:8. |
| 4. | 85.219.36 | bowl | wash | pitted | l | so | 5YR7/4 pink | --- |
| 5. | 85.220.22 | bowl | --- | light | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell Abu Habil fig.25:8.<br>2.Loud 1948,Megiddo pl.2:11. |
| 6. | 85.218.23 | jar | finger prints on the surface | light | l | m | 5YR7/3 pink | 1.Ben-Dor 1936, Jericho pl.XXIX:13 |
| 7. | 85.219.39 | bowl | --- | --- | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.9:6.<br>2.Perrot 1966,Munhat Munhatta fig.6:13. |
| 8. | 85.220.14 | bowl | --- | sc | l | so | 7.5YR8/2 pinkish white | 1.Contenson 1960a, Tell esh-Shuneh fig.3:18. |
| 9. | 85.220.13 | bowl | --- | --- | l | m | 5YR7/4 pink | --- |



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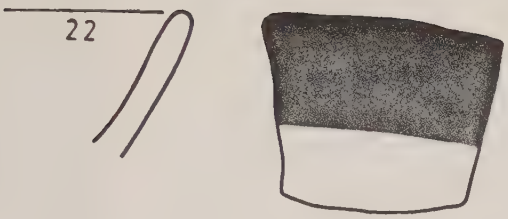

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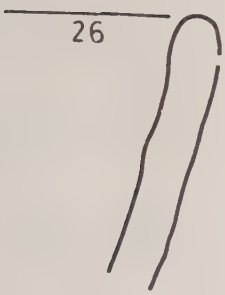

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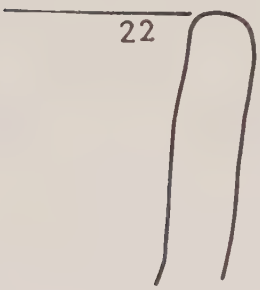

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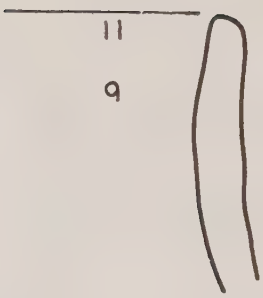

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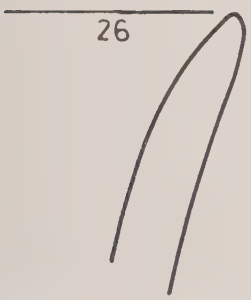

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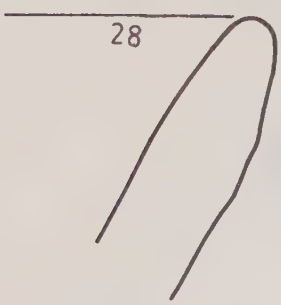

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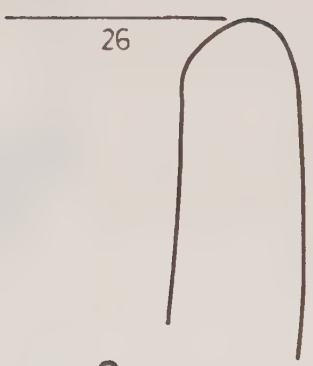
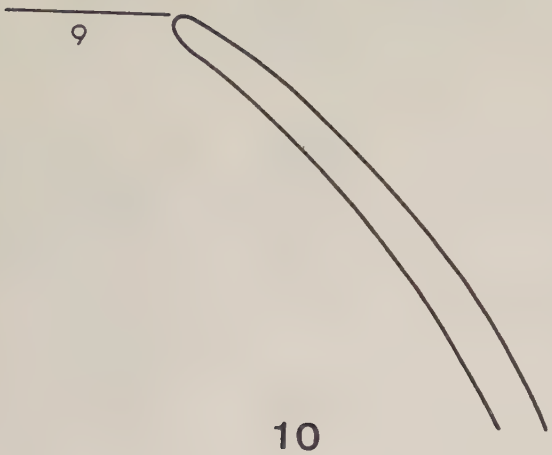


9

Tell Abu Hamid

| No. | Ident. | Form | Surf. Treat | Ware: Core | Ware: Incl. | Ware: Hard. | Ware: Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 10. | 85.?.28 | hole-mouth jar | --- | --- | l | m | 7.5YR7/2 pinkish gray | 1.Mellaart 1956, Ghrubba fig.4:23<br>2.Contenson 1960a, Tell es-Sa'idiyeh el-Tahat fig.32:2<br>3.Perrot 1964, Munhatta fig.3:14<br>4.Droop 1935, Jericho pl.XL:29, 30.<br>5.Loud 1948,Megiddo pl.1:17. |
| 11. | 85.220.25 | hole-mouth jar | wash | --- | s | h | 5YR7/4 pink | 1.Mellaart 1956, Ghrubba fig.4:23<br>2.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:2<br>3.Perrot 1964, Munhatta fig.3:14<br>4.Droop 1935,Jericho pl.XL:29,30.<br>5.Loud 1948,Megiddo pl.1:17. |
| 12. | 85.218.44 | hole-mouth jar | --- | sc | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:2<br>2.Perrot 1964, Munhatta fig.3:14.<br>3.Droop 1935,Jericho pl.XL:29,30.<br>4.Loud 1948,Megiddo pl.1:17. |
| 13. | 85.219.34 | hole-mouth jar | --- | --- | l | m | 5YR7/4 pink | 1.Mellaart 1956, Ghrubba fig.4:26 |
| 14. | 85.220.24 | hole-mouth jar | wash | --- | m | m | 5YR7/4 pink | 1.Ben-Dor 1936, Jericho pl. XXXIII:8. |
| 15. | 85.221.15 | krater | slip,7.5R4/4 weak red<br>rope-moulding | - | l | m | 5YR7/4 pink | 1.Fitzgerald 1935, Beth-Shan pl.I: 21. |

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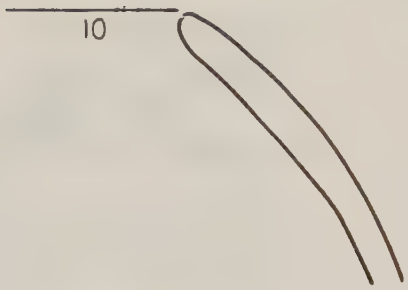


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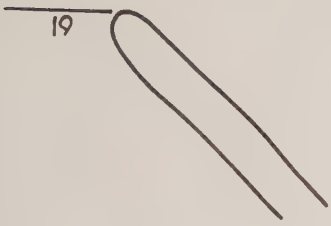


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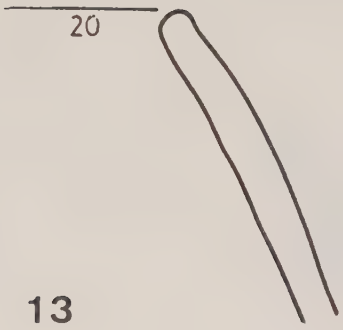


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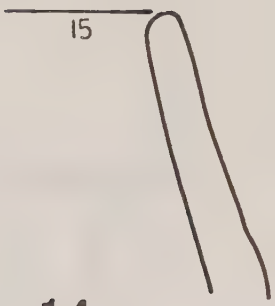


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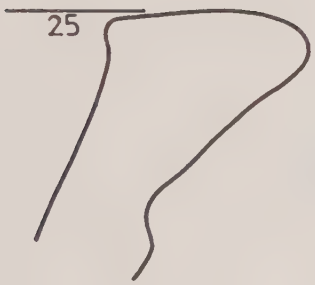
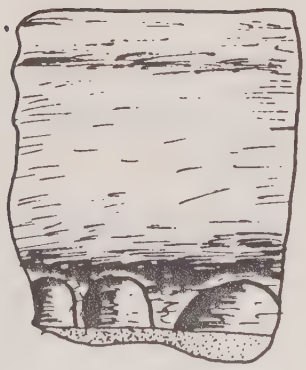


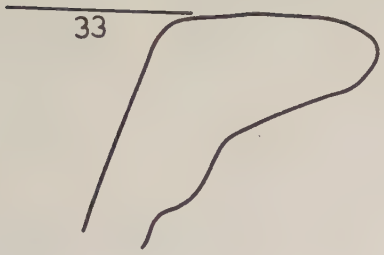



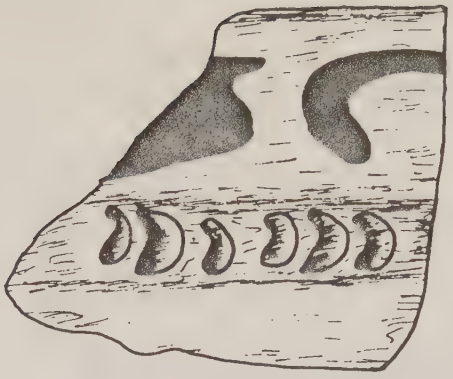
15

Tell Abu Hamid

TELL ABU HAMID Pl. 18

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 16. | 85.?.16 | krater | paint,7.5R5/6 red<br>pitted<br>nail incision | light | 1 | m | 5YR7/4 pink | --- |
| 17. | 85.221.17 | krater | rope-moulding | --- | 1 | m | 5YR7/4 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.33:12<br>2.Glueck 1951,Tell Abu Habil pl.122:5<br>3.Fitzgerald 1935, Beth-Shan pl.I: 20,30. |
| 18. | 85.220.20 | krater | rope-moulding | sc | 1 | m | 5YR8/3 pink | 1.Fitzgerald 1935, Beth-Shan pl:I: 20,23. |



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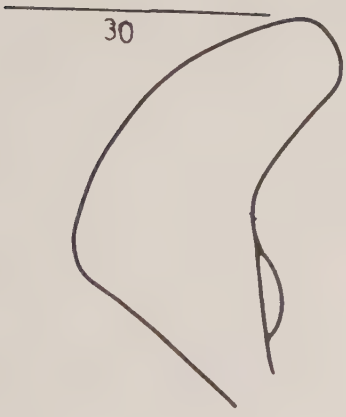


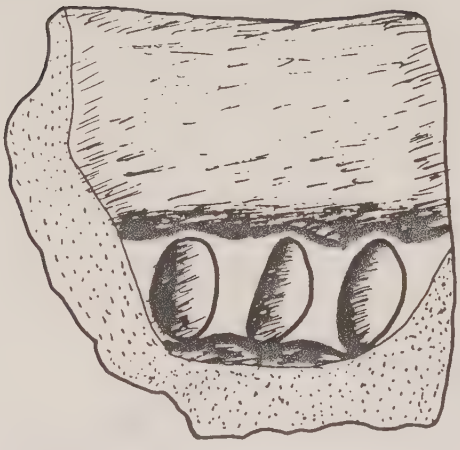

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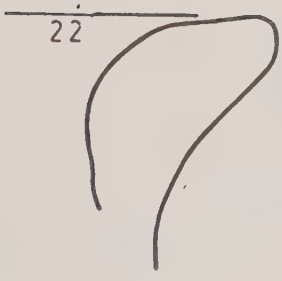
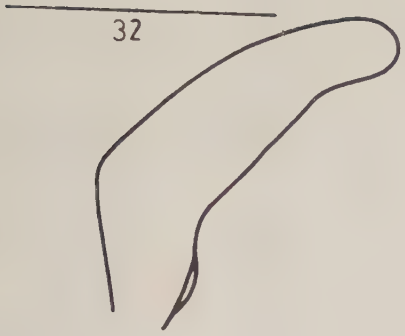


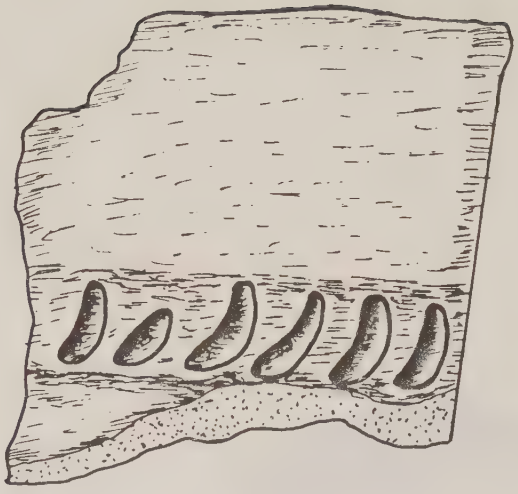
18

Tell Abu Hamid

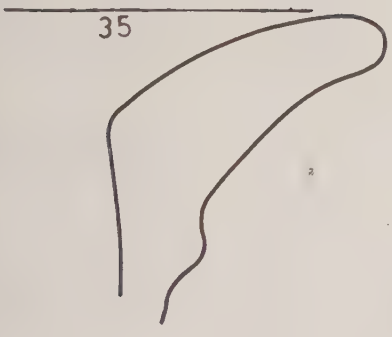
TELL ABU HAMID Pl. 19

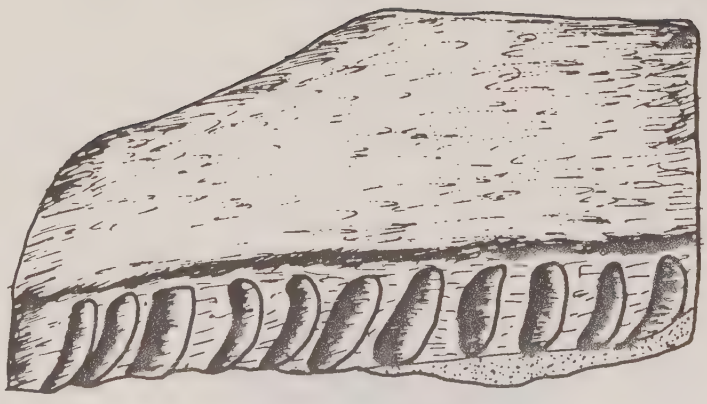
| No. | Ident. | Form | Surf. Treat. | ware Core | Incl. | Hard. | Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 19. | 85.218.18 | krater | wash<br>rope-moulding | --- | 1 | m | 5YR8/3 pink | 1.Contenson 1960: Tell es-Sa'idiyeh el-Tahta fig.33:12.<br>2.Glueck 1951, Tell Abu Habil pl.122:5. |
| 19a. | 85.218.19 | krater | rope-moulding | --- | 1 | m | 7.5YR6/4 pale red | 1.Contenson 1960: Tell es-Sa'idiyeh el-Tahta fig.33:12.<br>2.Glueck 1951, Tell Abu Habil pl.122:5. |



19



19a

Tell Abu Hamid

TELL ABU HABIL Pl. 20

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 20. | 85.?.12 | jar | slip,7.5R5/6 red | --- | l | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a, Tell esh-Shuneh fig.8:13.<br>2.Loud 1948,Megiddo pl.2:20.<br>3.Kaplan 1958a,Tulei-lat Batashi pl.11:2 |
| 21. | 85.219.1 | jar | --- | light sc | l | so | 5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:21. |
| 22. | 85.219.43 | jar | --- | --- | l | so | 10R6/6 light red | 1.Contenson 1960a, Tell esh-Shuneh fig.8:1. |
| 23. | 85.222.11 | jar | slip,10R5/6 red | dark sc | l | so | 5YR7/4 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta figs.32:19; 34:6.<br>2.Loud 1948,Megiddo pl.1:14,15,24.<br>3.Kaplan 1958a,Tulei-lat Batashi pl.10:23 |
| 24. | 85.219.50 | jar | slip,7.5R4/6 red<br>mat-imptressions | --- | s | m | 5YR7/4 pink | 1.Contenson 1960a, Tell Abu Habil fig.25:15.<br>2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.31.<br>3.Glueck 1951,Tell Abu Habil fig. 122:13.<br>4.Loud 1948,Megiddo pl.2:16. |
| 25. | 85.219.51 | jar | mat-impressions | pitted | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell Abu Habil figs.23:5; 26:6.<br>2.Glueck 1951,Tell Abu Habil pl.122:12<br>3.de Vaux 1961,Tell el-Far'ah fig.136.<br>4.Ben-Dor 1936,Jeri-cho pl.XXXII:33B. |

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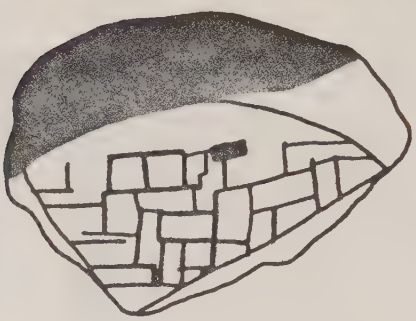

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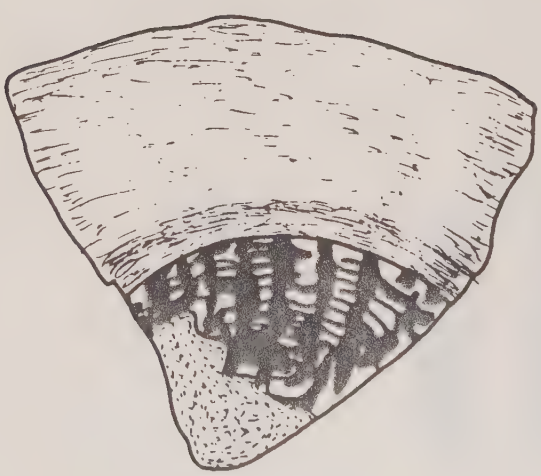
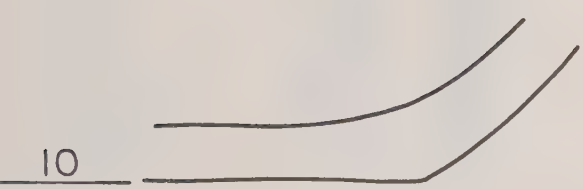


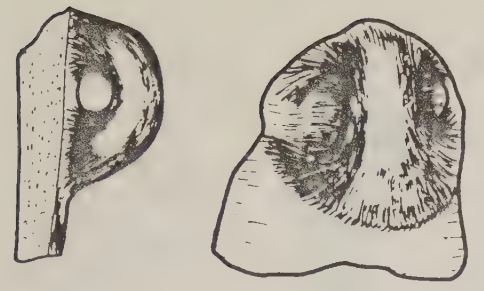



25

Tell Abu Hamid

TELL ABU HAMID Pl. 21

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 26. | 85.220.6 | bowl | --- | --- | l | m | 10R6/4 pale red | 1.Perrot 1966,Munhatta fig.6:3.<br>2.Droop 1935,Jericho pl.XLV:2. |
| 27. | 85.218.3 | bowl | paint,10R5/4 weak red | --- | l | m | 5YR8/4 pink | --- |
| 28. | 85.218.7 | bowl | --- | --- | --- | h | 7.5R2.5/2 very dusky red | 1.Perrot 1966, Munhatta fig.6:3.<br>2.Droop 1935,Jericho pl.XLV:2. |
| 29. | 85.218.2 | bowl | --- | --- | l | m | 5YR7/4 pink | 1.de Vaux 1947,Tell el-Far'ah fig.1:15<br>2.Fitzgerald 1935, Beth-Shan pl.II:26 |
| 30 | 85.219.40 | bowl | --- | --- | l | m | 7.5YR8/2 pinkish white | 1.Fitzgeral 1935, Beth-Shan pl.II: 27. |
| 31. | 85.220.5 | bowl | paint,10R5/4 weak red | --- | s | h | 10R6/6 light red | 1.Contenson 1960a, Tell Abu Habil fig.25:17. |



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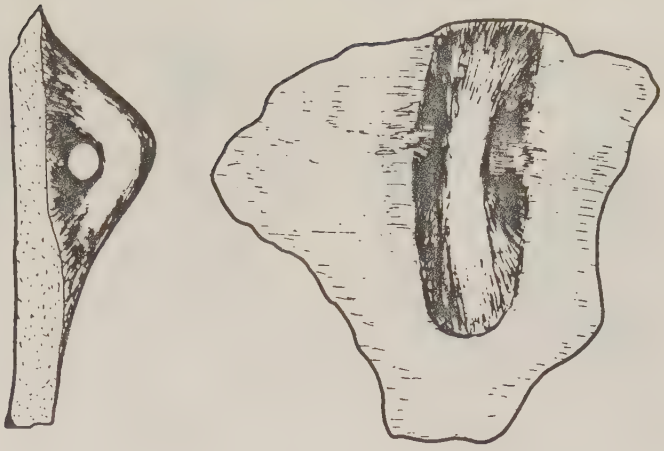

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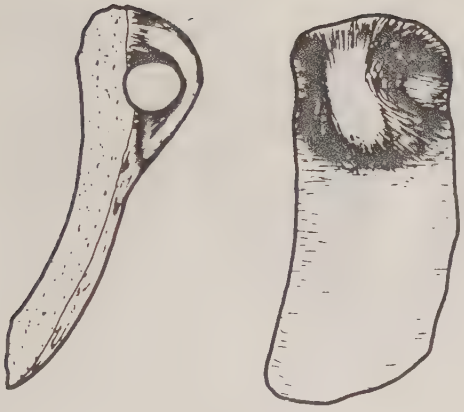

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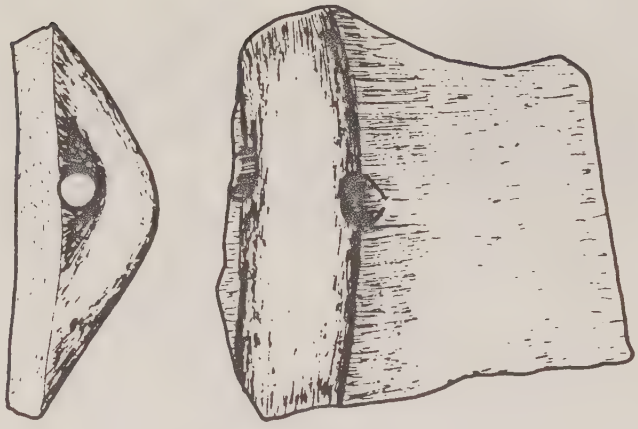

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31

Tell Abu Hamid

TELL ABU HAMID Pl.22

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 32. | 85.219.46 | bowl | slip,7.5R6/6 light red | pitted | s | h | 10YR7/2 light gray | 1.Droop 1935,Jericho pl.XLV:1.<br>2.Fitzgerald 1935, Beth-Shan pl.II:17 |
| 33. | 85.218.4 | bowl | wash | sc | l | so | 10R6/6 light red | 1.Droop 1935,Jericho pl.XLV:1. |
| 34. | 85.219.47 | bowl | --- | --- | s | h | 5YR7/3 pink | 1.de Vaux 1947,Tell el-Far'ah fig.1:16 |
| 35. | 85.219.2 | jar | --- | dark | m | m | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.7:7.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:36 |
| 36. | 85.219.49 | jar | --- | sc | l | so | 5YR8/3 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.7:8.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:36<br>3.Perrot 1966, Munhatta fig.6:9.<br>4.Fitzgerald 1935, Beth-Shan pl.II: 22. |

32

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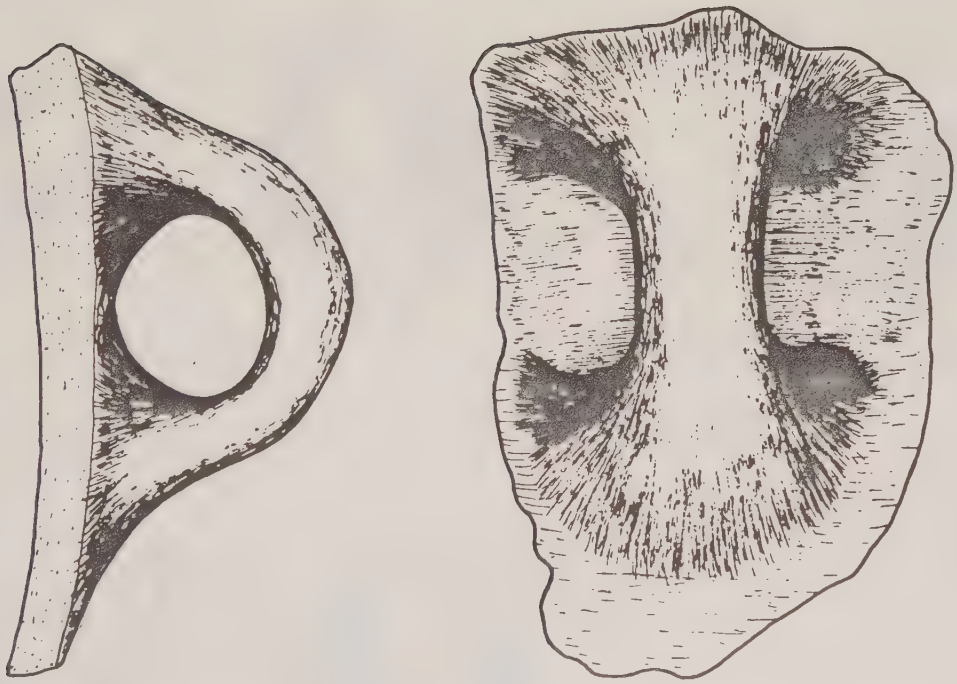
36

Tell Abu Hamid

TELL ABU HAMID Pl. 23

| No. | Ident. | Form | Surf. Treat. | Core | Incl. | Hard. | Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 37. | 85.219.48 | jar | --- | sc | l | m | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.7:2.<br>2.de Vaux 1947,Tell el-Far'ah fig.1: 19. |
| 38. | 85.219.1 | jar | slip,7.5R5/2 weak red | sc | l | so | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.7:5.<br>2.Contenson 1960a, Tell Abu Habil fig.25:16.<br>3.de Vaux 1947,Tell el-Far'ah fig.1:17<br>4.de Vaux 1961,Tell el-Far'ah fig.1:21 |

37

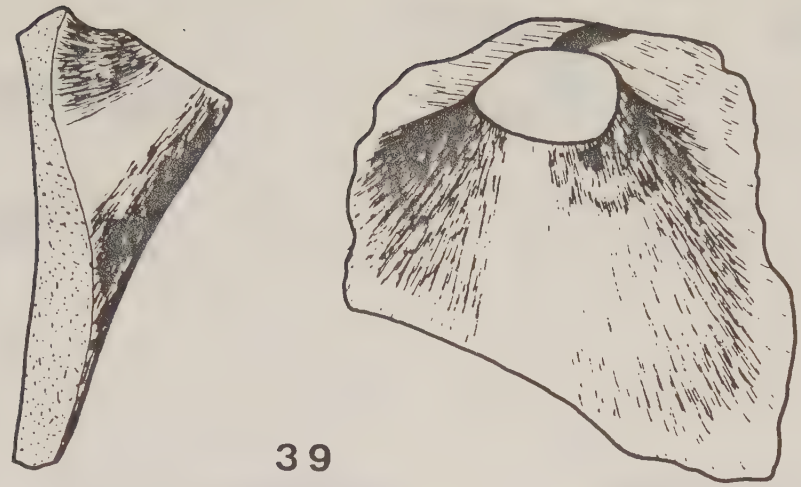


38

Tell Abu Hamid

TELL ABU HAMID Pl. 24

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 39. | 85.221.37 | jar | wash | --- | l | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a,Tell esh-Shuneh fig.7:4.<br>2.Glueck 1951,Tell Abu Habil pl.121:3 |
| 40. | 85.221.32 | jar | --- | --- | l | m | 5YR8/2 pinkish white | --- |
| 41. | 85.219.38 | bowl | paint,7.5R4/6 red | --- | m | m | 5YR7/4 pink | --- |
| 42. | 85.218.35 | jar | --- | --- | l | m | 7.5YR8/2 pinkish white | 1.de Vaux 1961,Tell el-Far'ah fig.1:20 |
| 43. | 85.219.41 | jar | --- | --- | m | so | 7.5YR8/2 pinkish white | 1.Contenson 1960a, Tell esh-Shuneh fig.7:9. |



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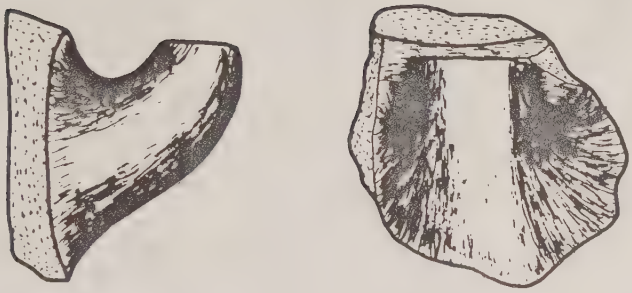

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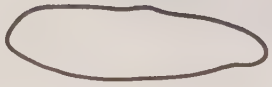
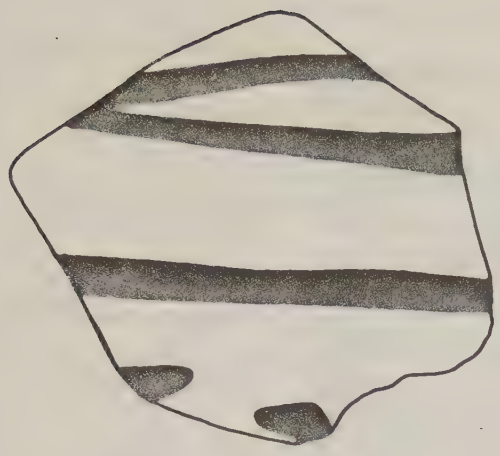


43

Tell Abu Hamid

TELL ABU HAMID Pl. 25

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 44. | 85.218.31 | --- | paint,10R6/4 pale red | --- | m | m | 7.5YR8/4 pink | 1.Mellaart 1956, Ghrubba fig.5:61,63<br>2.Loud 1948,Megiddo pl.2:35. |
| 45. | 85.219.33 | --- | paint on ext. and int., 5R4/4 weak red | light | l | so | 5YR7/3 pink | 1.Mellaart 1956, Ghrubba fig.5:61,63<br>2.Loud 1948,Megiddo pl.2:35. |
| 46. | 85.219.42 | --- | paint,7.5R5/6 red | --- | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.3:20.<br>2.Contenson 1960a, Tell Abu Habil fig.26:1,7.<br>3.Perrot 1964, Munhatta fig.3:4,6<br>4.Loud 1948,Megiddo pl.2:4. |
| 47. | 85.220.29 | --- | paint,5R4/4 weak red<br>burnishing | --- | l | m | 5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:35,36. |
| 48. | 85.221.45 | --- | paint,5R5/6 red | pitted | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.3:20.<br>2.Contenson 1960a, Tell Abu Habil Fig.26:1,7.<br>3.Perrot 1964, Munhatta fig.3:4,6.<br>4.Loud 1948,Megiddo pl.2:4. |
| 49. | 85.221.52 | --- | paint,10R5/3 weak red | --- | l | m | 5YR8/2 pinkish white | 1.Loud 1948,Megiddo pl.2:6. |
| 50. | 85.222.30 | --- | paint,5R4/4 weak red | --- | m | so | 7.5YR6/6 light red | 1.Loud 1948,Megiddo pl.2: |



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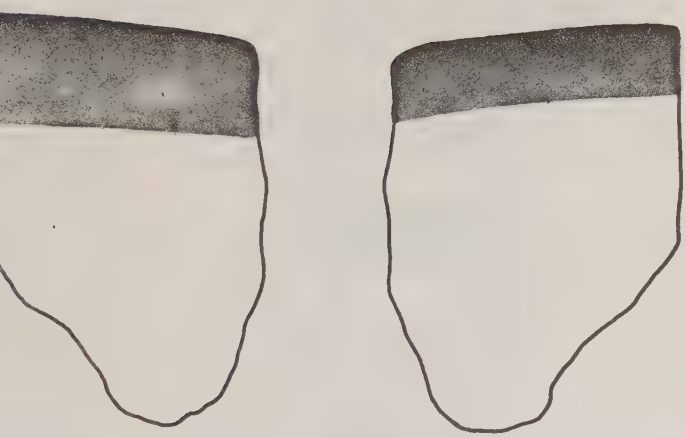

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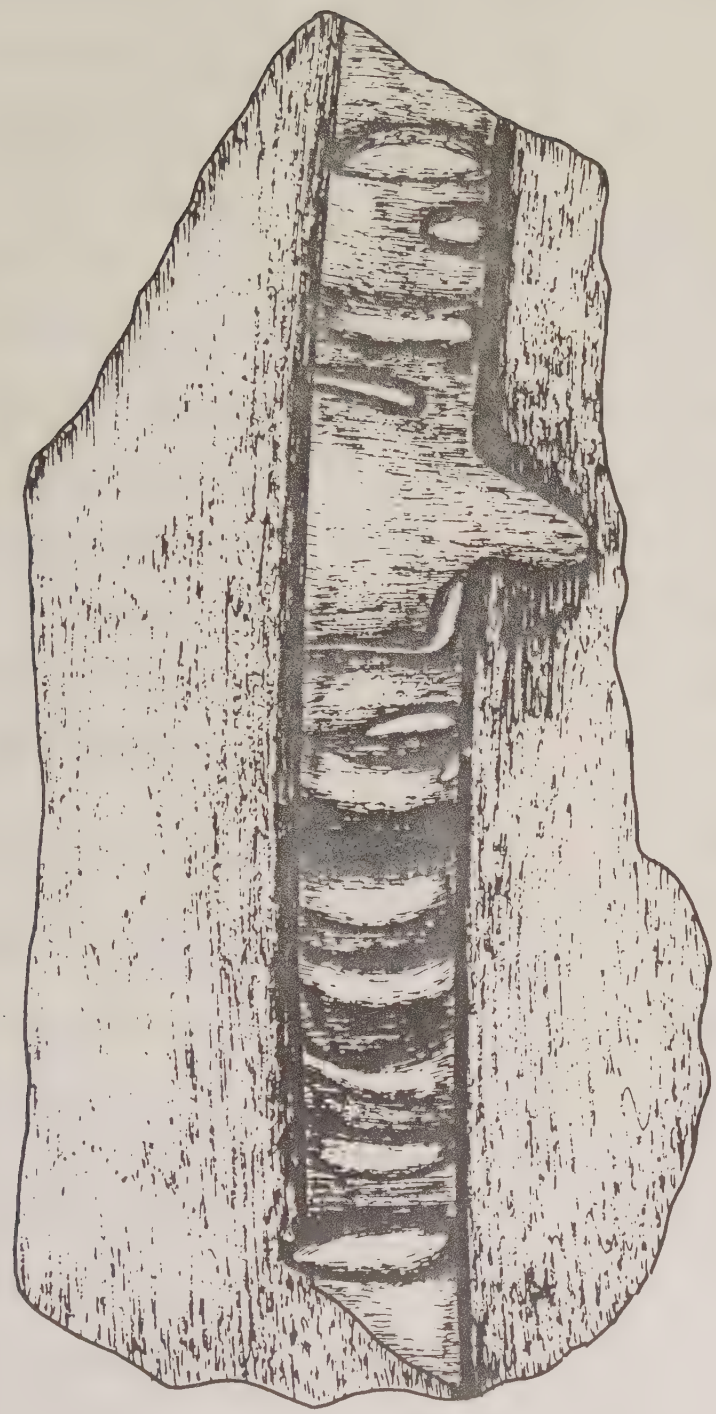
Tell Abu Hamid

| No. | Ident. | Form | Surf.Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 51. | 85.220.10 | --- | rope-moulding | --- | 1 | m | 10R6/4 pale red | 1.Contenson 1960a, Tell esh.Shuneh fig.4:13.<br>2.Glueck 1951,Tell Abu Habil pl.122:7 |
| 52. | 85.221.8 | --- | rope-moulding | --- | 1 | m | 5YR8/3 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.33:6.<br>2.de Vaux 1961,Tell el-Far'ah fig.1: 11. |
| 53. | 85.218.9 | --- | rope-moulding | pitted | 1 | so | 10R6/4 pale red | 1.Contenson 1960a, Tell esh-Shuneh fig.4:15<br>2.Contenson 1960a, Tell Abu Habil fig.26:18. |



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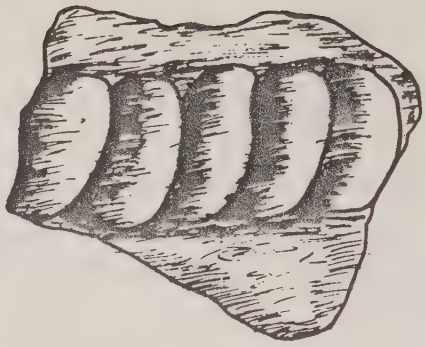
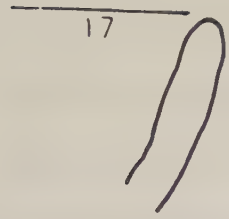
52



53

Tell Abu Hamid

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 98.263.1 | bowl | --- | --- | s | m | 7.5YR8/4 pink | 1.Mellaart 1956,Ghrubba fig.4:15.<br>2.Ben-Door 1936,Jericho pl.XXXIII:7. |
| 2. | 98.264.7 | bowl | --- | --- | s | m | 5R6/6 light red | 1.Contenson 1960a,Tell esh-Shuneh fig.3:16.<br>2.Droop 1935,Jericho pl.XL:19. |
| 3. | 98.262.5 | bowl | wash | --- | l | m | 7.5YR8/4 pink | 1.Mellaart 1956,Ghrubba fig.4:3.<br>2.Ben-Door 1936,Jericho pl.XXXIII:6. |
| 4. | 98.263.5 | bowl | --- | --- | l | m | 5YR7/3 pink | 1.Contenson 1960a,Tell Abu Habil fig.23:4.<br>2.Contenson 1960a,Tell esh-Shuneh fig.3:12.<br>3.Ben-Door 1936,Jericho pl.XXXIII:5. |
| 5. | 98.262.4 | bowl | slip,5R4/4 weak red | light | m | m | 7.5YR8/4 pink | 1.Mellaart 1956,Ghrubba fig.4:10. |
| 6. | 98.263.8 | bowl | --- | dark | l | m | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:15. |
| 7. | 98.263.14 | bowl | --- | --- | l | m | 7.5YR8/2 pink | 1.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:8. |
| 8. | 98.264.3 | bowl | --- | light | s | m | 5YR8/4 pink | 1.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:15. |
| 9. | 98.264.8 | bowl | --- | --- | l | so | 5YR4/3 reddish brown | 1.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:16 |
| 10. | 98.265.6 | bowl | --- | light | l | m | 7.5YR8/4 pink | 1.Droop 1936,Jericho pl.XL:17. |
| 11. | 98.262.1 | bowl | --- | --- | m | m | 10YR7/3 very pale brown | 1.Contenson 1960a,Tell esh-Shuneh fig.3:19. |
| 12. | 98.263.6 | jar | slip,7.5R6/6 light red | --- | m | so | 5YR8/3 pink | 1.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:2.<br>2.Ben-Door 1936,Jericho pl.XXXIII:8. |
| 13. | 98.264.2 | hole-mouth jar | --- | --- | s | m | 7.5R6/8 light red | 1.Loud 1948,Megiddo pl.1:19. |
| 14. | 98.263.11 | hole-mouth jar | --- | light | m | m | 7.5YR8/4 pink | --- |
| 15. | 98.263.7 | hole-mouth jar | --- | dark | l | m | 7.5YR7/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.26:9. |

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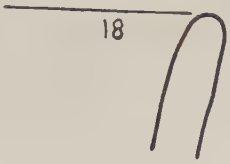


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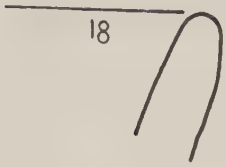


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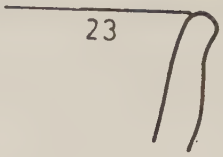


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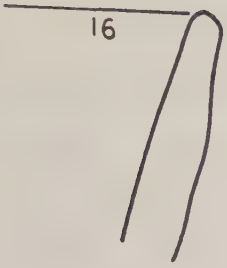


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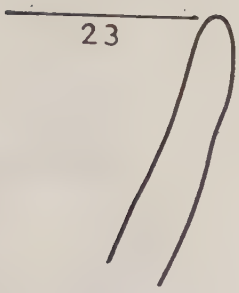


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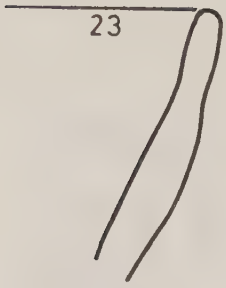


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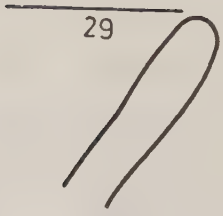


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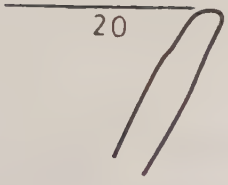


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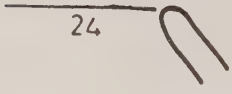
11

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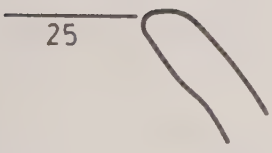


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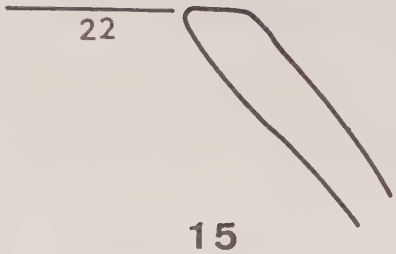
14

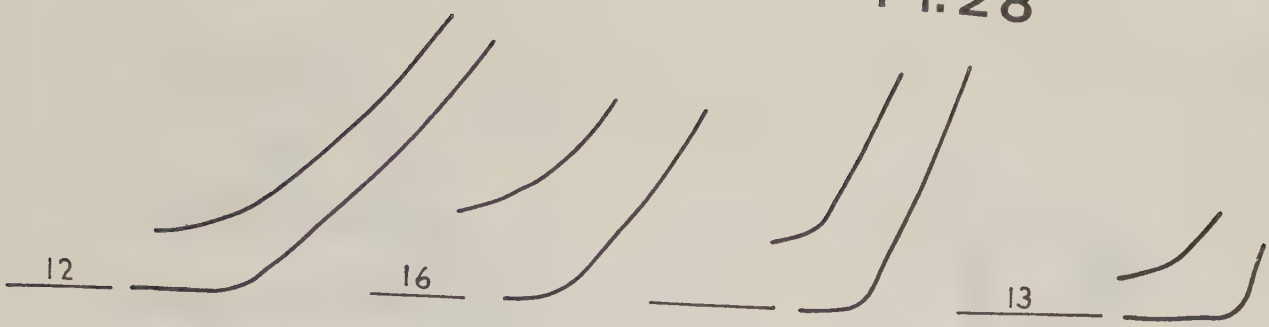



15

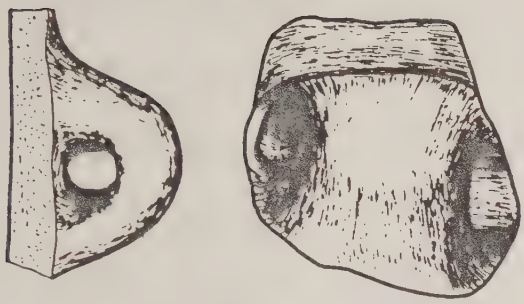
Al-Ḥamra

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 16. | 98.262.9 | jar | --- | light | m | m | 7.5YR7/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.24:3.<br>2.Contenson 1960a,Tell esh-Shuneh fig.8:6.<br>3.Ben-Door 1936,Jericho pl.XXXIII:19.<br>4.Loud 1948,Megiddo pl.2:18. |
| 17. | 98.263.3 | jar | slip,10R4/4 weak red | --- | l | m | 10YR8/4 very pale brown | 1.Contenson 1960a,Tell esh-Shuneh fig.8:3. |
| 18. | 98.263.2 | jar | --- | light | l | m | 5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:20. |
| 19. | 98.263.4 | jar | --- | --- | l | m | 5YR8/3 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:9. |
| 20. | 98.262.14 | bowl | slip,5YR6/1 gray | sc | l | so | 5YR7/4 pink | 1.Fitzgerald 1934,Beth-Shan fig.1.<br>2.Droop 1935,Jericho pl.XLV:13. |
| 21. | 98.264.15 | bowl | --- | dark | l | m | 2.5YR6/6 light red | 1.Fitzgerald 1934,Beth-Shan fig.1.<br>2.Droop 1935,Jericho pl.XLV:5. |
| 22. | 98.262.17 | jar | --- | dark | l | so | 5YR7/4 pink | --- |
| 23. | 98.262.18 | jar | slip,7.5R6/8 light red | light pitted | l | m | 5YR7/4 pink | --- |
| 24. | 98.265.19 | jar | | dark pitted | l | m | 5YR8/4 pink | --- |
| 25. | 98.263.15 | jar | --- | --- | l | m | 7.5YR8/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.23:12.<br>2.Contenson 1960a, Tell esh-Shuneh fig.7:7.<br>3.Fitzgerald 1935,Beth-Shan pl.II:21. |
| 26. | 98.263.13 | jar | --- | --- | l | m | 2.5YR5/0 gray | 1.Fitzgerald 1935,Beth-Shan pl.II:22. |
| 27. | 98.265.20 | jar | --- | sc | m | so | 5YR8/4 pink | --- |
| 28. | 98.264.16 | jar | --- | --- | m | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.7:5. |
| 29. | 98.263.10 | jar | --- | dark | s | h | 7.5R6/2 pale red | 1.Contenson 1960a,Tell esh-Shuneh fig.7:4. |

# Pl. 28




16 17 18 19



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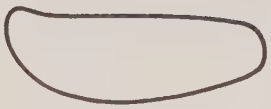
21

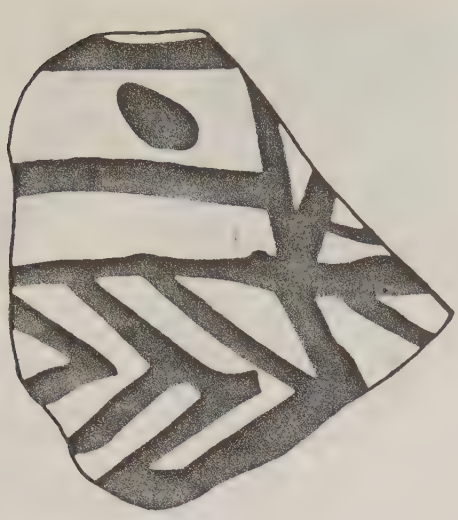


22 23 24 25

26 27 28 29

Al-Ḥamra

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 30. | 98.262.11 | --- | paint,7.5R4/4 weak red | --- | s | m | 7.5YR8/4 pink | 1.Mellaart 1956,Ghrubba fig.5:65. |
| 31. | 98.262.10 | --- | paint,10R4/6 red | pitted | m | so | 7.5YR8/4 pink | 1.Mellaart 1956,Ghrubba fig.5:67.<br>2.Loud 1948,Megiddo pl.2:36. |
| 32. | 98.263.12 | --- | incising slip,5R4/4 weak red | --- | l | m | 10R6/6 light red | --- |
| 33. | 98.265.12 | --- | rope-moulding | light | s | m | 10R6/6 light red | |
| 34. | 98.264.13 | --- | rope-moulding | --- | m | m | 10R6/6 light red | 1.Contenson 1960a,Tell Abu Habil figs.23:8; 25:19.<br>2.Contenson 1960a,Tell esh-Shuneh fig.4:15.<br>3.Fitzgerald 1935,Beth-Shan pl.1:24-26.<br>4.Loud 1948,Megiddo pl.2:48. |
| 35. | 98.263.9 | --- | rope-moulding | dark | l | h | 2.5YR5/4 reddish brown | 1.Contenson 1960a,Tell Abu Habil figs.23:8; 25:19.<br>2.Contenson 1960a,Tell esh-Shuneh fig.4:15.<br>3.Fitzgerald 1935,Beth-Shan pl.1:24-26.<br>4.Loud 1948,Megiddo pl.2:48. |



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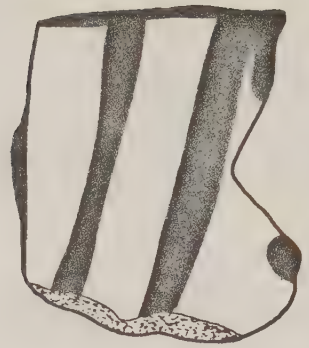

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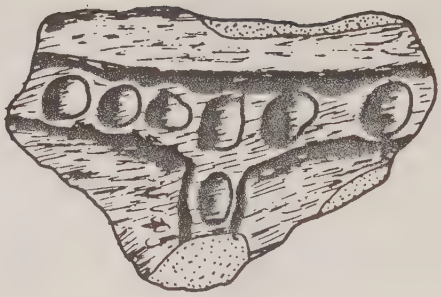
32



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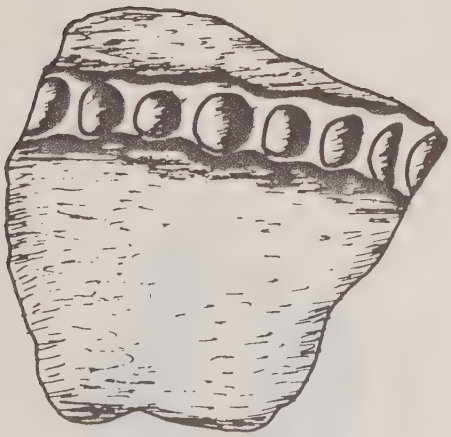


34

35

Al-Hamra

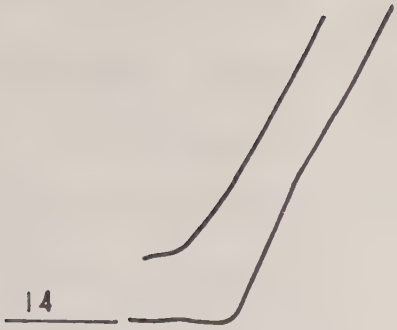
TELL SEQA'AH Pl.30

| No. | Ident. | Form | Surf. Treat. | Core | Incl. | Hard. | Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 1. | 99.267.4 | cup | paint,7.5R5/6 red<br>slip,7.5R5/6 red | --- | m | m | 5YR7/4 pink | --- |
| 2. | 99.266.2 | hole-mouth jar | nail-incising | pitted | l | so | 5YR8/3 pink | --- |
| 3. | 99.267.3 | bowl | slip,7.5R5/6 red | --- | m | m | 5YR8/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:8.<br>2.Ben-Door 1936,Jericho pl.XXXIII:21. |
| 4. | 99.266.6 | jar | slip,2.5R5/4 reddish brown | --- | l | m | 7.5YR8/2 pinkish white | 1.Contenson 1960a,Tell esh-Shuneh fig.7:5.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:13. |
| 5. | 99.267.1 | bowl | paint,7.5R4/6 red | --- | s | h | 5YR8/3 pink | 1.de Vaux 1947,Tell el-Far'ah fig.1: 14-16. |
| 6. | 99.266.5 | bowl | 2.5YR5/4 reddish<br>wash | pitted | l | so | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh pl.2:1 |

Pl. 30

1

2

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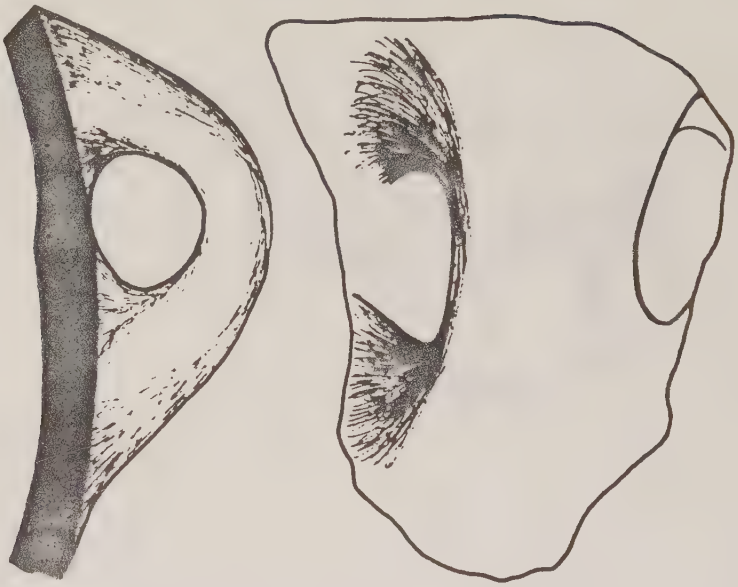


4

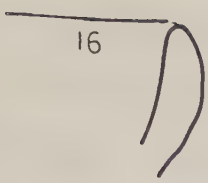
5

6

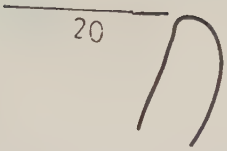
Tell Seqa'ah

KHIRBET FALAH Pl.31

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 101.271.7 | bowl | slip,10R4/4 weak red | --- | s | m | 7.5YR8/4 pink | 1.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:21.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:29. |
| 2. | 101.269.4 | bowl | --- | dark | m | m | 7.5YR8/4 pink | 1.Kaplan 1958a,Tuleilat Batashi pl.10:2. |
| 3. | 101.270.5 | bowl | paint,7.5R3/6 dark red | --- | s | h | 7.5YR8/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.3:3.<br>2.Kaplan 1958a,Tuleilat Batashi pl.10:18.<br>3.Loud 1948,Megiddo pl.2:26. |
| 4. | 101.269.2 | bowl | paint,10R4/6 red | --- | s | h | 7.5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.3:9,15.<br>2.Loud 1948,Megiddo pl.2:2. |
| 5. | 101.269.1 | jar | --- | --- | m | m | 10R6/6 light red | 1.Contenson 1960a,Tell esh-Shuneh fig.4:2.<br>2.Loud 1948,Megiddo pl.1:11. |
| 6. | 101.269.8 | --- | herring-bone incising | --- | s | h | 5YR7/6 reddish | 1.Stekelis 1950-51,Sha'ar ha-Golan pl.i.<br>2.Kaplan 1958a,Tuleilat Batashi pls.9:12;10:14<br>3.Loud 1948,Megiddo pl.2:40.<br>4.Fitzgeral 1934,Beth-Shan fig.1.<br>5.Fitzgerald 1935,Beth-Shan pl.III:17,18.<br>6.Droop 1935,Jericho pl.XLI:22.<br>7.Ben-Dor 1936,Jericho pl.XXXIII:15.<br>8.Kaplan 1958b,Wadi Rabbah fig.4:3. |
| 7. | 101.269.6 | bowl | paint,7.5R3/6 | --- | s | m | 7.5R6/6 | 1.Loud 1948,Megiddo pl.2:1. |
| 8. | 101.269.3 | --- | notching | --- | s | h | 10R4/8 red | 1.Kaplan 1958a,Tuleilat Batashi pl.10:24.<br>2.Droop 1935,Jericho pl.XLI:18.<br>3.Ben-Dor 1936,Jericho pl.XXXIII:12.<br>4.Kaplan 1958b,Wadi Rabbah fig.6:3. |




1

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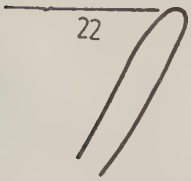
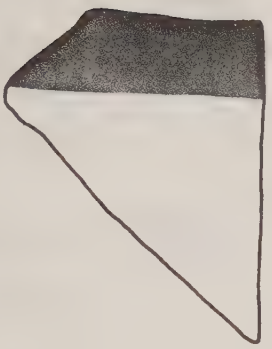



3



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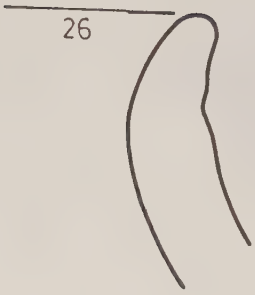


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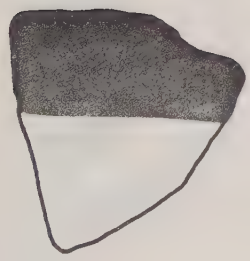
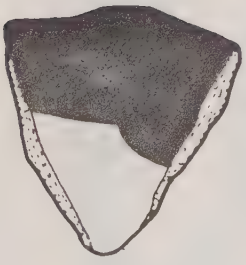
6





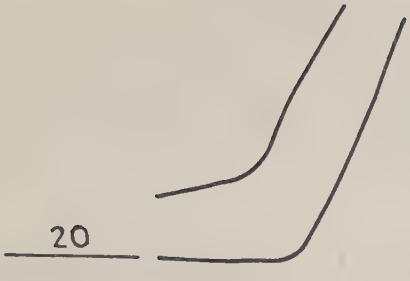
7

8

Khirbet Falaḥ

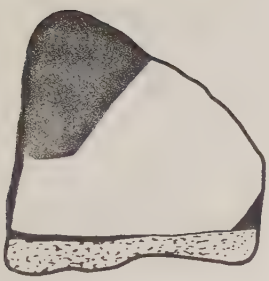
TELL EL-ʿOS (Nos.1-3) and TELL EN-NKHEIL (Nos.4-7) Pl.32

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 102.272.1 | jar | --- | lignt pitted | l | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:6.<br>2.Ben-Dor 1936,Jericho pl.XXXIII:19.<br>3.Stekelis and Haas 1952, fig.17. |
| 2. | 102.272.2 | bowl? | paint,5R3/4 dusky red | --- | s | h | 5YR6/4 light reddish brown | 1.Mellaart 1956,Ghrubba fig.5:81. |
| 3. | 102.275.3 | --- | paint,5R4/4 weak red | light | l | m | 5YR6/4 light reddish brown | 1.Mellaart 1956,Ghrubba fig.5:62 |
| 4. | 108.301.2 | bowl | --- | --- | s | m | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:11.<br>2.Contenson 1960a,Tell esh-Shuneh fig.3:14. |
| 5. | 108.305.1 | jar | mat-impression | --- | s | h | 10YR6/2 light brownish gray | 1.Glueck 1951,Tell Abu Habil pl.122:12<br>2.Contenson 1960a,Tell Abu Habil fig 26:6.<br>3.Ben-Door 1936,Jericho pl.XXXII:33B. |
| 6. | 108.301.4 | jar | --- | --- | s | m | 7.5YR8/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.7:2.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:14. |
| 7. | 108.301.3 | bowl | --- | --- | m | m | 5YR7/4 pink | 1.de Vaux 1947,Tell el-Far'ah fig.1:35.<br>2.Droop 1935,Jericho pl.XLV:4. |




1

2



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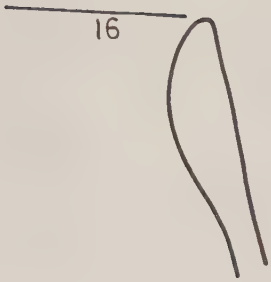
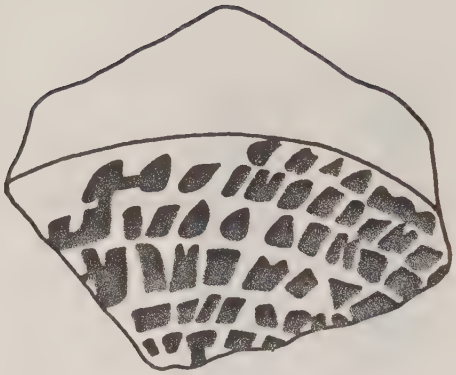



4



5

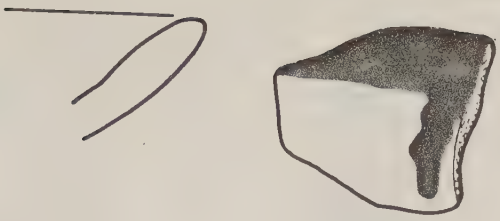
6

7

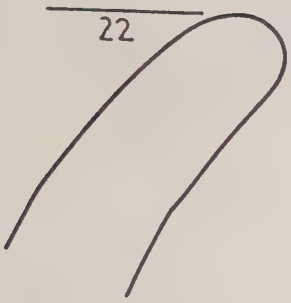
(1-3) Tell el-Qos
(4-7) Tell en-Nkheil

TELL QA'DAN NORTH (No.1) and SOUTH (Nos.2-5) Pl. 33

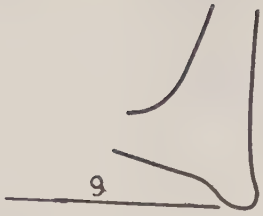
| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 116.321.1 | bowl | slip,10YR8/3 very pale brown<br>paint,7.5R4/6 red | --- | s | h | 5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:6. |
| 2. | 117.323.2 | jar | wash | pitted | l | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.12:4.<br>2.Droop 1935,Jericho pl.XL:1.<br>3.Ben-Dor 1936,Jericho pl.XXXII:22.<br>4.Loud 1948,Megiddo pl.1:5. |
| 3. | 117.323.5 | bowl | --- | sc | l | m | 10YR8/3 very pale brown | 1.Kaplan 1958b,Wadi Rabbah fig.4:14. |
| 4. | 117.322.3 | --- | --- | --- | l | m | 2.5YR6/4 light reddish brown | --- |
| 5. | 117.323.6 | --- | rope-moulding | --- | l | m | 7.5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:48. |



1

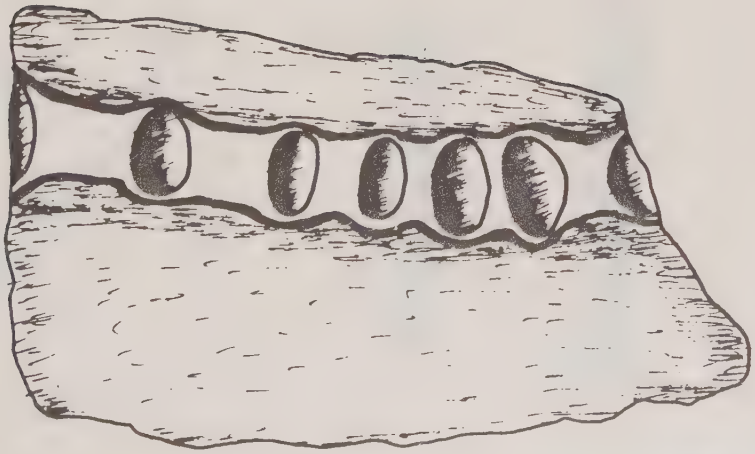



2




3

4



5

(1) Tell Qa'dan North
(2-5) Tell Qa'dan South

TELL QA'DAN SOUTH Pl. 34

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 6. | 117.323.1 | jar | --- | pitted | 1 | so | 7.5YR8/4 pink | 1.Contenson 1960a,Tell Abu Habil fig.23:12.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:19. |
| 7. | 117.323.4 | jar | --- | sc<br>pitted | 1 | so | 10R6/6 light red | 1.Contenson 1960a,Tell Abu Habil fig.23:12. |

6

7

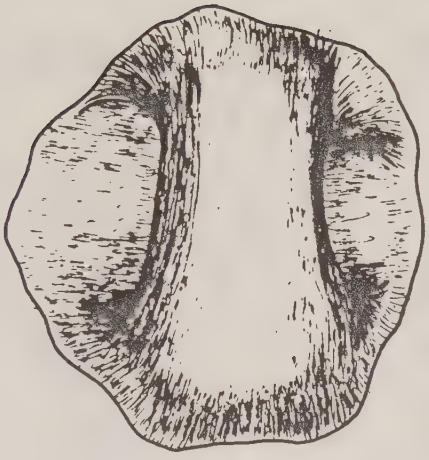
Tell Qa'dan (South)

KATARET ES-SAMRA Pl. 35

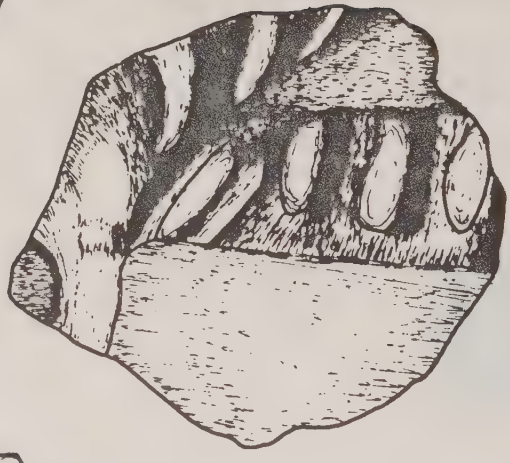
| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 126.341.4 | bowl | slip,10R5/4 weak red | sc | s | m | 5YR7/3 pink | 1.Contenson 1960a,Tell Abu Habil fig.25:6. |
| 2. | 126.341.3 | bowl | --- | light | l | mm | 5YR7/3 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.3:14.<br>2.de Vaux 1947,Tell el-Far'ah fig.1:27. |
| 3. | 126.341.2 | jar | --- | --- | l | m | 7.5R5/6 red | 1.Contenson 1960a,Tell e esh-Shuneh fig.7:5.<br>2.Fitzgerald 1934,Beth-Shan fig.1:4.<br>3.de Vaux 1947,Tell el-Far'ah fig.1:19. |
| 4. | 126.341.5 | --- | rope-moulding | sc | l | so | 7.5R6/6 light red | 1.Contenson 1960a,Tell esh-Shuneh fig.7:7.<br>2.Fitzgerald 1934,Beth-Shan fig.1:3.<br>3.Fitzgerald 1935,Beth-Shan pl.II:18,24.<br>4.Droop 1935,Jericho pl.XLI:15.<br>5.de Vaux 1947,Tell el-Far'ah fig.1:36. |
| 5. | 126.341.1 | jar | --- | --- | l | m | 10R6/6 light red | 1.Contenson 1960a,Tell esh-Shuneh fig.4:1.<br>2.Contenson 1960a,Tell Abu Habil fig.23:8, 9. |

1

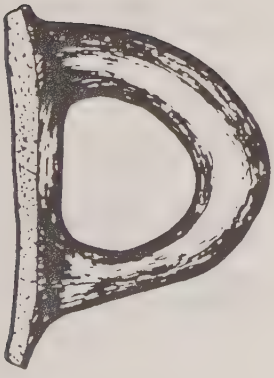
2

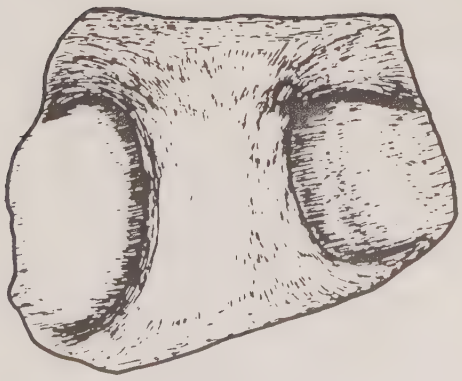


3



4



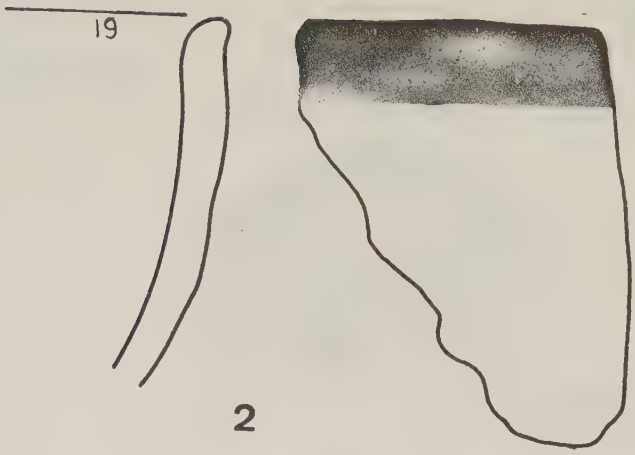


5

Kataret es-Samra

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 170.425.14 | bowl | --- | light<br>sc | m | so | 10YR7/3 very pale brown | 1.Mellaart 1956,Ghrubba fig.4:2.<br>2.Ben-Dor 1936,Jericho pl.XXIX:19. |
| 2. | 170.425.16 | bowl | paint,5R4/4 weak red | sc | l | so | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.5:75. |
| 3. | 170.425.29 | bowl | wash | --- | m | m | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:3,4.<br>2.Kaplan 1958a,Tuleilat Batashi pl.7:11. |
| 4. | 170.425.24 | bowl | slip,10YR7/4 very pale brown | dark | s | m | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:6. |
| 5. | 170.425.30 | bowl | --- | light | l | m | 10R6/6 light red | 1.Ben-Dor 1936,Jericho pl.XXIX:21. |
| 6. | 170.429.20 | bowl | --- | --- | s | h | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:9. |
| 7. | 170.429.28 | bowl | --- | --- | m | so | 5YR7/6 reddish yellow | 1.Mellaart 1956,Ghrubba fig.4:9 |
| 8. | 170.425.32 | bowl | --- | --- | s | so | 10R6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:15. |
| 9. | 170.425.25 | bowl | slip,10R6/6 light red | --- | s | h | 5YR7/6 reddish yellow | --- |
| 10. | 170.425.18 | jar | --- | --- | m | m | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:47. |
| 11. | 170.425.31 | bowl | slip,5YR7/3 pink<br>wash | pitted | m | h | 10YR8/3 very pale brown | 1.Mellaart 1956,Ghrubba fig.4:12. |
| 12. | 170.425.26 | jar | slip,5R4/4 weak red | --- | l | m | 5YR8/4 pink | 1.Mellaart 1956,Ghrubba fig.4:48.<br>2.Droop 1935,Jericho pl.XL:1.<br>3.Ben-Dor 1936,Jericho pl.XXXII:22.<br>4.Kaplan 1958a,Tuleilat Batashi pl.10:8. |
| 13. | 170.425.23 | bow-rim jar | --- | --- | s | h | 5YR7/2 pinkish gray | 1.Mellaart 1956,Ghrubba fig.4:40.41.<br>2.Droop 1935,Jericho pl.XL:3,4.<br>3.Ben-Dor 1936,Jericho pl.XXXII:21.<br>4.Kaplan 1958a,Tuleilat Batashi pl.10:13. |

1

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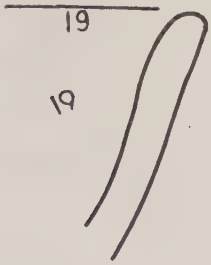


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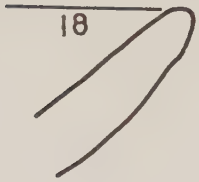


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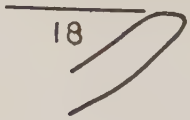


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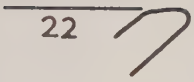


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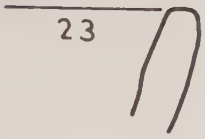


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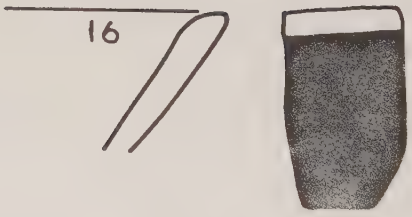


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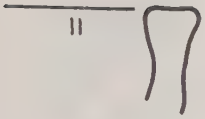


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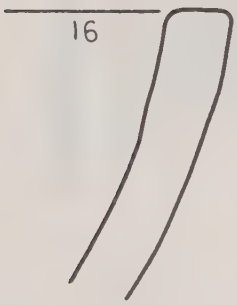


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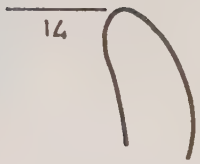


13

Ghrubba

GHRUBBA Pl. 37

| No. | Ident. | Form | Surf. Treat. | ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 14. | 170.425.10 | bowl | mat-impressions<br>wash | --- | m | m | 5YR8/3 pink | 1.Ben-Dor 1936,Jericho pl.XXX:22.<br>2.Stekelis 1950-51, Sha'ar ha-Golan fig. 13:16.<br>3.Kaplan 1958a,Tuleilat Batashi pl.8:22.<br>4.Kaplan 1958b,Wadi Rabbah fig.4:6. |
| 15. | 170.425.5 | jar | mat-impressions | --- | m | m | 7.5YR7/4 pink | 1.Ben-Dor 1936,Jericho pl.XXXII:33B.<br>2.Kaplan 1958b,Wadi Rabbah fig.5:14. |
| 16. | 170.425.4 | --- | --- | --- | l | so | 5YR7/3 pink | 1.Ben-Dor 1936,Jericho pl.XXX:9,10.<br>2.Kaplan 1958a,Tuleilat Batashi pl.8:3.<br>3.Tzori 1958,el-Khirbeh es-Soda pl.IVA.<br>4.Kaplan 1958b,Wadi Rabbah fig.4:7. |
| 17. | 170.425.6 | jar | wash | --- | s | h | 5YR7/3 pink | 1.Glueck 1951. Tell Abu Habil pl.12:11. |
| 18. | 170.425.7 | --- | paint,5R4/3 weak red | sc | s | so | 7.5YR8/2 pink | 1.Mellaart 1956,Ghrubba fig.5:65. |
| 19. | 170.424.9 | --- | paint,5R4/6 red | --- | s | m | 10R6/6 light red | 1.Mellaart 1956,Ghrubba fig.5:63. |
| 20. | 170.425.1 | --- | paint,5R4/8 red | --- | s | m | 10R6/6 light red | 1.Mellaart 1956,Ghrubba fig.5:63. |

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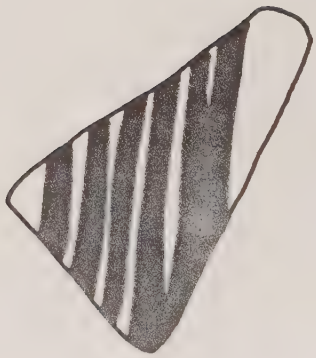
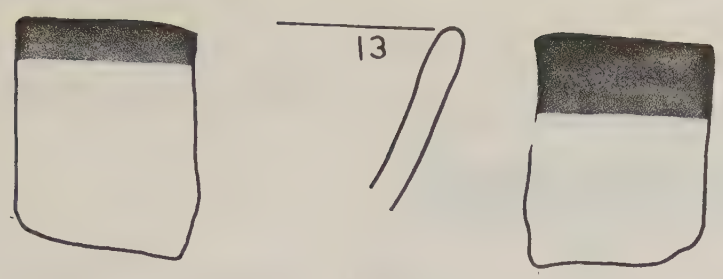


20

Ghrubba

'EFFASH Pl. 38

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 172.419.9 | bowl | paint,7.5R4/6 red wash | --- | s | h | 7.5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.5:75.<br>2.Contenson 1960a,Tell esh-Shuneh fig.3:15.<br>3.Loud 1948,Megiddo pl.2:1 |
| 2. | 172.432.16 | bowl | slip,10R4/3 weak red | --- | m | m | 10YR7/3 very pale brown | 1.Mellaart 1956,Ghrubba fig.4:1. |
| 3. | 172.429.23 | bowl | paint,7.5R4/4 weak red wash | light | s | m | 10YR8/3 very pale brown | --- |
| 4. | 172.432.12 | bowl | --- | light | s | h | 5YR7/8 pink | 1.Mellaart 1956,Ghrubba fig.4:2. |
| 5. | 172.?.19 | bowl | --- | --- | m | m | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:7 |
| 6. | 172.432.6 | bowl | --- | pitted | l | m | 7.5YR8/4 pink | 1.Mellaart 1956,Ghrubba fig.4:3.<br>2.Contenson 1960a,Tell esh-Shuneh fig.3:6 |
| 7. | 172.429.17 | bowl | wash | --- | l | m | 2.5YR6/6 light red | |
| 8. | 172.432.18 | bowl | slip,10R4/4 weak red | pitted | m | m | 5YR7/3 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.3:21. |
| 9. | 172.432.9 | bowl | slip,5YR7/3 pink | --- | l | h | 7.5YR6/4 light brown | 1.Contenson 1960a,Tell esh-Shuneh fig.3:21. |
| 10. | 172.428.14 | jar | --- | --- | l | h | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:23.<br>2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.32:2.<br>3.Droop 1935,Jericho pl.XLII:7 |

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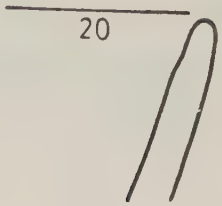


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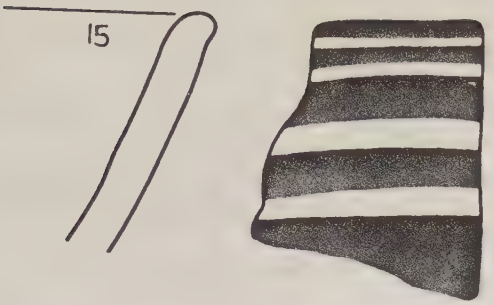


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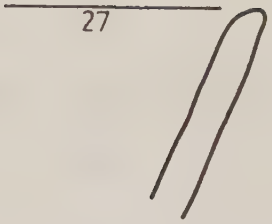


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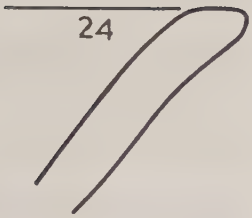


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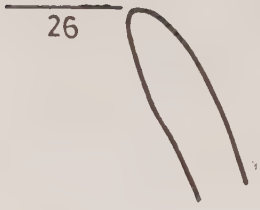
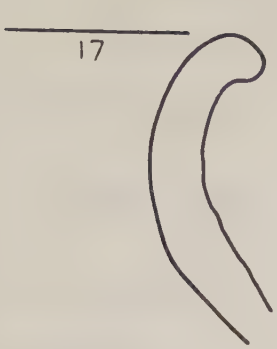



10

'Affash

'AFFASH Pl. 39

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 11. | 172.432.24 | jar | slip,10YR8/2 white | --- | l | m | 10R6/6 light red | --- |
| | | | paint,7.5R4/4 weak red | | | | | |
| 12. | 172.432.8 | jar | slip,10R4/4 weak red | --- | m | m | 2.5YR6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:44. |
| | | | | | | | | 2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.33:11. |
| | | | | | | | | 3.Droop 1935,Jericho pl.XL:6. |
| 13. | 172.429.13 | jar | wash | --- | l | m | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:43. |
| | | | | | | | | 2.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.33:10. |
| | | | | | | | | 3.Droop 1935,Jericho pl.XL:13. |
| 14. | 172.432.8 | jar | --- | --- | l | m | 5YR7/4 pink | 1.Perrot 1964,Munhatta fig.3:11. |
| 15. | 172.432.5 | jar | --- | pitted | m | m | 5YR8/4 pink | 1.Perrot 1964,Munhatta fig.3:12. |
| 16. | 172.429.11 | jar | --- | --- | s | h | 5YR7/4 pink | 1.Contenson 1960a,Tell es-Sa'idiyeh el-Tahta fig.33:13. |
| | | | | | | | | 2.Droop 1935,Jericho pl.XL:12. |
| 17. | 172.432.6 | jar | wash | --- | s | m | 10R6/8 light red | 1.Mellaart 1956,Ghrubba fig.4:49. |
| 18. | 172.429.14 | jar | wash | --- | l | m | 10R6/6 light red | 1.Glueck 1951,Tell 'Abu Habil pl.122:4. |
| | | | | | | | | 2.Ben-Dor 1936,Jericho pl.XXXII:22. |
| | | | | | | | | 3.Perrot 1964,Munhatta fig.3:12. |



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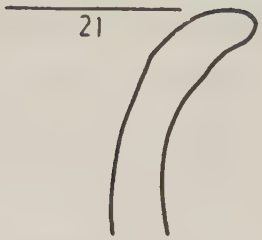


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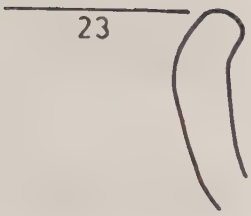


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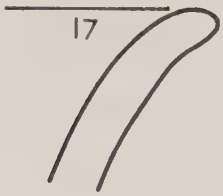


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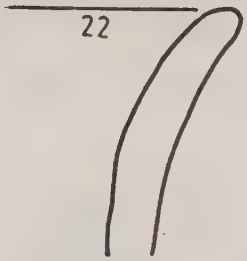


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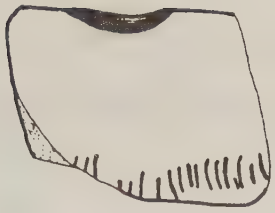
´Affash

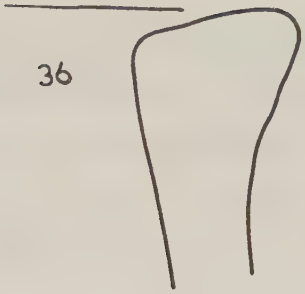
'AFFASH Pl.40

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 19. | 172.429.22 | krater | nail-incising thumb impressions | pitted | l | m | 10R6/6 light red | 1.Droop 1935,Jericho pl.XLI:5. |
| 20. | 172.429.16 | krater | wash | --- | l | h | 5YR7/4 pink | 1.Kaplan 1958a, Tuleilat Batashi pl.10:4. |
| 21. | 172.432.10 | krater | --- | --- | l | m | ext.; 7.5YR8/4 pink<br>int.; 10YR2.5/1 black | 1.Droop 1935,Jericho pl.XLI:6.<br>2.Ben-Dor 1936,Jericho pl.XXXII:29B. |
| 22. | 172.429.7 | krater | --- | --- | l | m | 5YR7/4 pink | 1.Ben-Dor 1936, Jericho pl.XXXII: 24B. |
| 23. | 172.432.2 | bowl | --- | --- | l | m | 10R6/6 light red | 1.Droop 1935,Jericho pl.XL:35.<br>2.Ben-Dor 1936, Jericho pl.XXXII:32 |
| 24. | 172.429.18 | jar? | --- | pitted | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.8:7,8. |
| 25. | 172.432.21 | jar | --- | pitted | s | m | 5YR7/4 pink | |
| 26. | 172.429.15 | jar | --- | --- | m | h | 7.5YR8/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.8:4.<br>2.Ben-Dor 1936,J Jericho pl.XXXIII: 19. |
| 27. | 172.432.13 | jar | --- | dark | s | m | 10R6/6 light red | 1.Ben-Dor 1936, Jericho pl.XXXIII: 21. |

Pl.40

19



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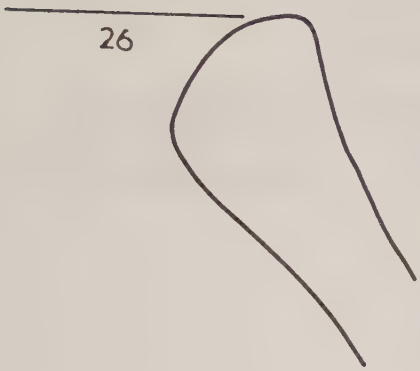


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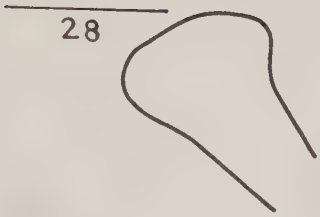


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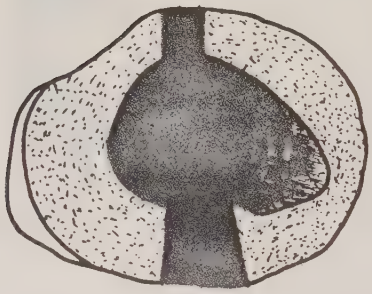

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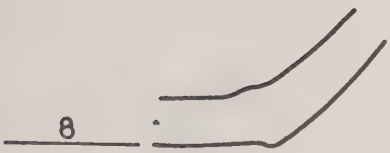


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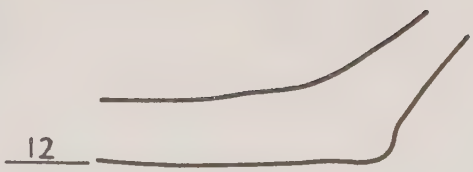



27

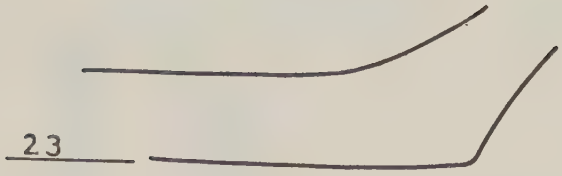
Affash

'AFFASH Pl. 41

| No. | Ident. | Form | Surf. Treat. | Ware | | | Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | | |
| 28. | 172.428.10 | jar | --- | --- | l | m | 5YR8/3 pink | 1.Ben-Dor 1936,Jericho pl.XXXIII:19. |
| 29. | 172.432.7 | jar | --- | --- | l | h | 5YR7/4 pink | 1.Kaplan 1958a,Tuleilat Batashi pl.11:2.<br>2.Ben-Dor 1936,Jericho pl.XXXIII:21. |
| 30. | 172.?.20 | jar | --- | --- | s | h | 7.5YR7/2 pinkish gray | --- |
| 31. | 172.432.4 | jar | --- | --- | s | h | 10R6/6 light red | --- |
| 32. | 172.432.12 | jar | --- | --- | l | m | 7.5YR8/4 pink | 1.Fitzgerald 1935,Beth-Shan pl.II:26 |
| 33. | 172.432.3 | jar | --- | pitted | l | so | 10YR8/3 very pale brown | --- |
| 34. | 172.432.19 | jar | --- | --- | l | h | 7.5YR8/2 pinkish white | 1.Glueck 1951,Tell Abu Habil pl.121:3.<br>2.Fitzgerald 1935,Beth-Shan pl.II:17. |

Pl.41

28

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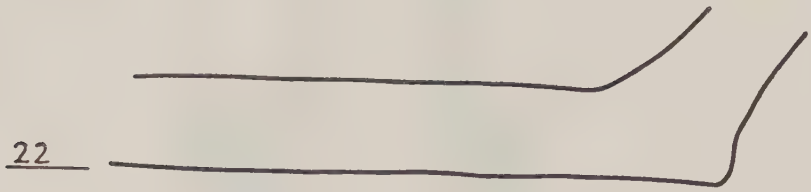


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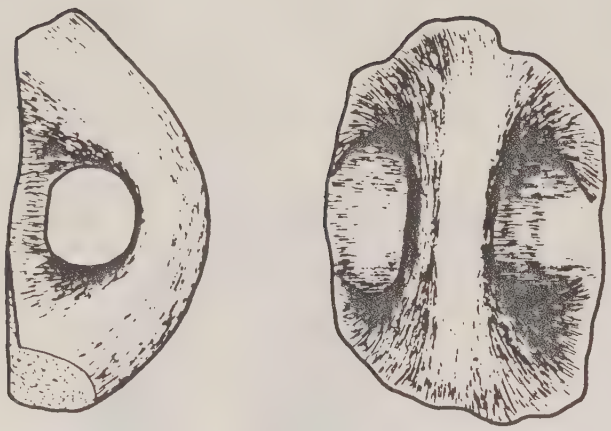

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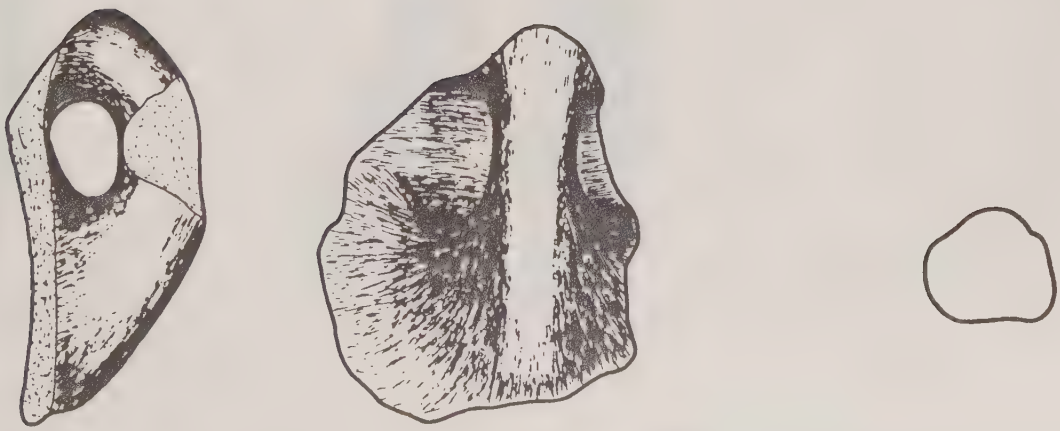


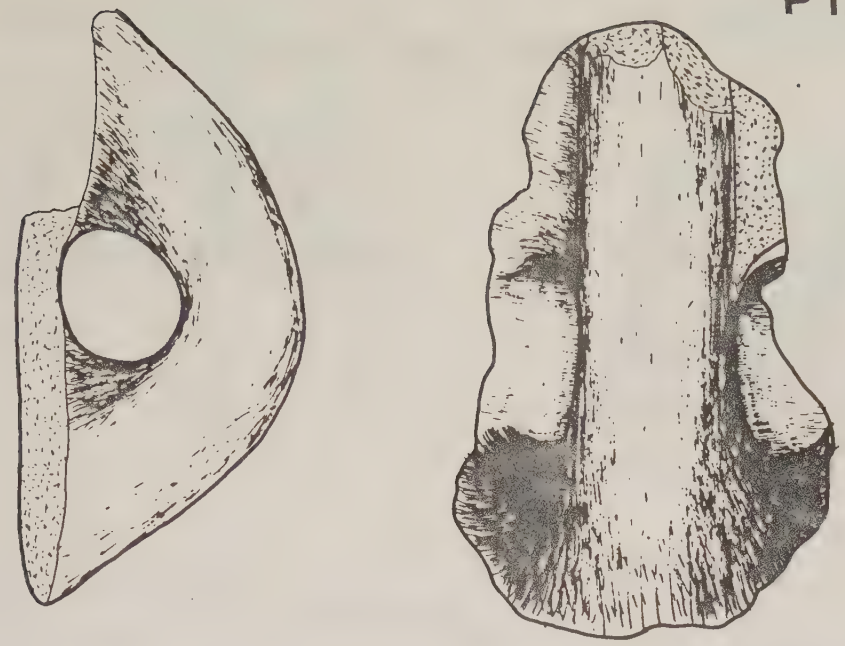
33

34

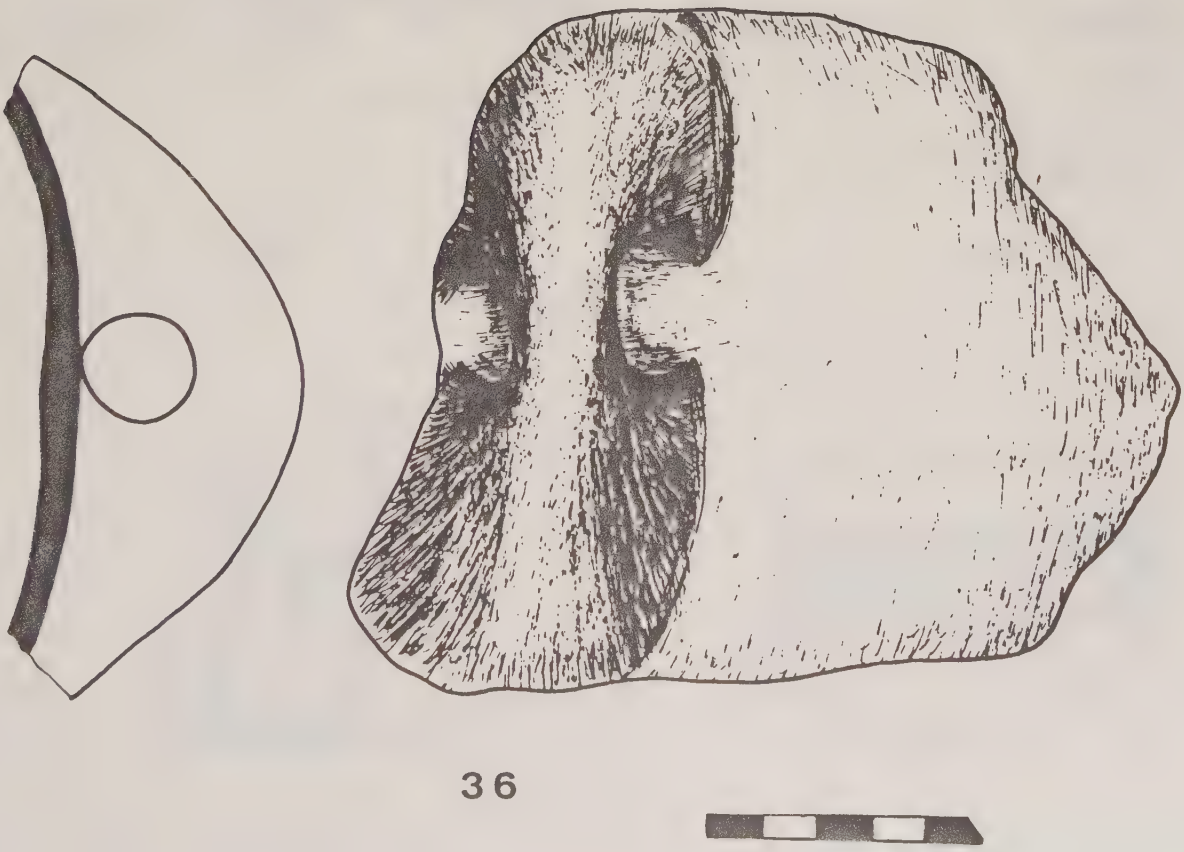
´Affash

'AFFASH Pl.42

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 35. | 172.432.5 | jar | --- | --- | s | h | 10R6/6 light red | 1.Contenson 1960a,Tell Abu Habil fig.23:7.<br>2.Glueck 1951,Tell Abu Habil pl.121:11. |
| 36. | 172.432.1 | jar | wash | --- | l | m | 5YR8/2 pinkish gray | 1.Contenson 1960a,Tell Abu Habil fig.23:7.<br>2.Glueck 1951,Tell Abu Habil pl.121:11. |



35



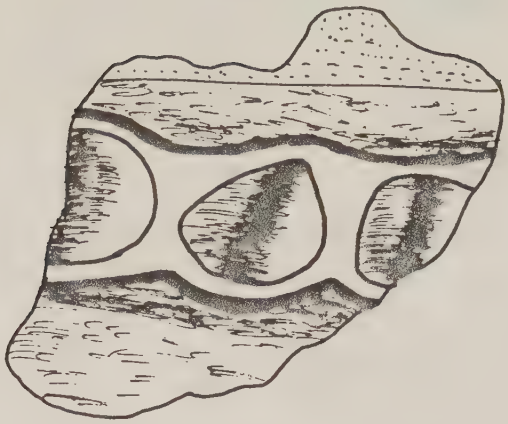
36

'Affash

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 37. | 172.432.17 | --- | rope-moulding | --- | l | m | 5YR7/4 pink | 1.Contenson 1960a, Tell Abu Habil fig.23:8.<br>2.Loud 1948,Megiddo pl.2:46,48,49. |
| 38. | 172.429.1 | --- | rope-moulding | dark | l | so | 5YR7/3 pink | 1.Contenson 1960a, Tell Abu Habil fig.23:8.<br>2.Loud 1948,Megiddo pl.2:46,48,49. |
| 39. | 172.432.3 | --- | rope-mpulding<br>wash | --- | s | h | 5YR7/4 pink | 1.Contenson 1960a, Tell Abu Habil fig.23:8.<br>2.Loud 1948,Megiddo pl.2:46,48,49. |
| 40. | 172.432.15 | --- | rope-moulding | --- | m | m | 10R6/6 light red | 1.Contenson 1960a, Tell Abu Habil fig.23:8.<br>2.Loud 1948,Megiddo pl.2:46,48,49. |
| 41. | 172.429.2 | --- | rope-moulding<br>wash | pitted | l | m | ext.: 7.5YR8/2 pinkish white; int.: 5YR7/4 pink | 1.Loud 1948,Megiddo pl.2:46,48,49. |
| 42. | 172.428.4 | --- | rope-moulding | sc | l | m | 5YR7/3 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.4:13. |

Pl. 43

37



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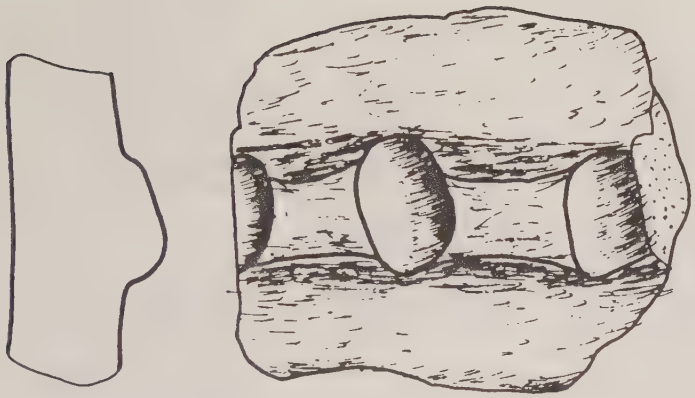

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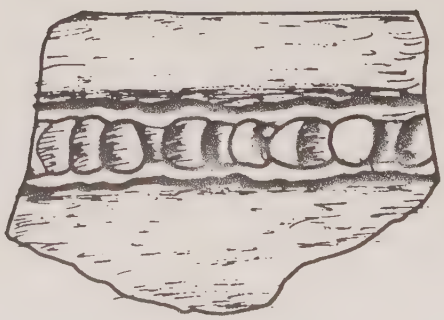

42

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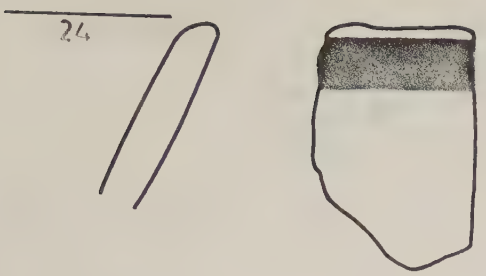
GHRUBBA EAST Pl. 44

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 173.430.12 | bowl | paint,7.5R5/4 weak red<br>wash | --- | s | h | 5YR7/3 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.3:7<br>2.Loud 1948,Megiddo pl.2:4. |
| 2. | 173.430.15 | bowl | paint,7.5R4/6 red | --- | s | m | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.3:3.<br>2.Loud 1948,Megiddo pl.2:4. |
| 3. | 173.431.19 | bowl | wash | --- | m | h | 10R6/6 light red | 1.Mellaart 1956, Ghrubba fig.4:1. |
| 4. | 173.431.22 | bowl | --- | --- | s | h | 5YR8/4 pink | 1.Mellaart 1956, Ghrubba fig.4:2.<br>2.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:15 |
| 5. | 173.430.13 | bowl | paint,7.5R4/6 red | pitted | l | m | 5YR7/3 pink | 1.Mellaart 1956, Ghrubba fig.4:6. |
| 6. | 173.430.11 | bowl | --- | --- | l | h | 5YR7/3 pink | 1.Mellaart 1956, Ghrubba fig.4:15. |
| 7. | 173.431.15 | bowl | --- | --- | s | so | 5YR7/3 pink | --- |
| 8. | 173.430.17 | bowl | paint,5R4/6 red | --- | s | m | 5YR7/4 pink | 1.Mellaart 1956, Ghrubba fig.4:7.<br>2.Contenson 1960a, Tell esh-Shuneh fig.3:12. |
| 9. | 173.431.27 | bowl | wash | --- | l | so | 10R6/6 light red | 1.Mellaart 1956, Ghrubba fig.4:15. |
| 10. | 173.431.17 | bowl | --- | light pitted | s | so | 10R6/4 light red | 1.Mellaart 1956, Ghrubba fig.4:14.<br>2.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:20. |

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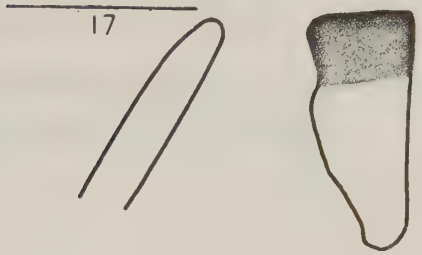


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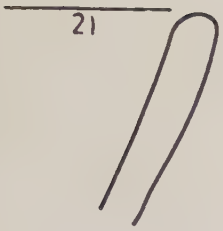


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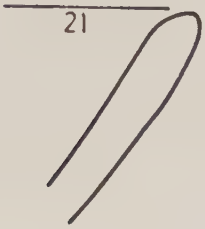


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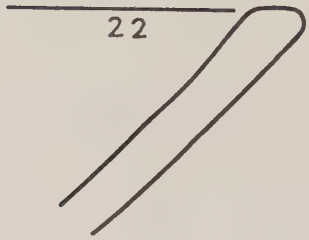


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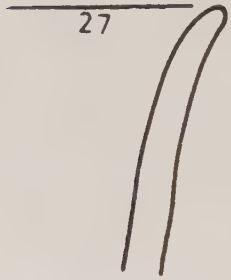


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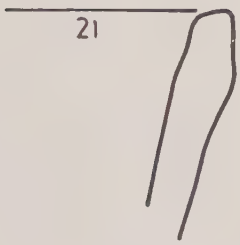
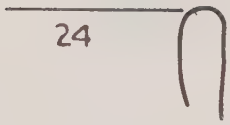


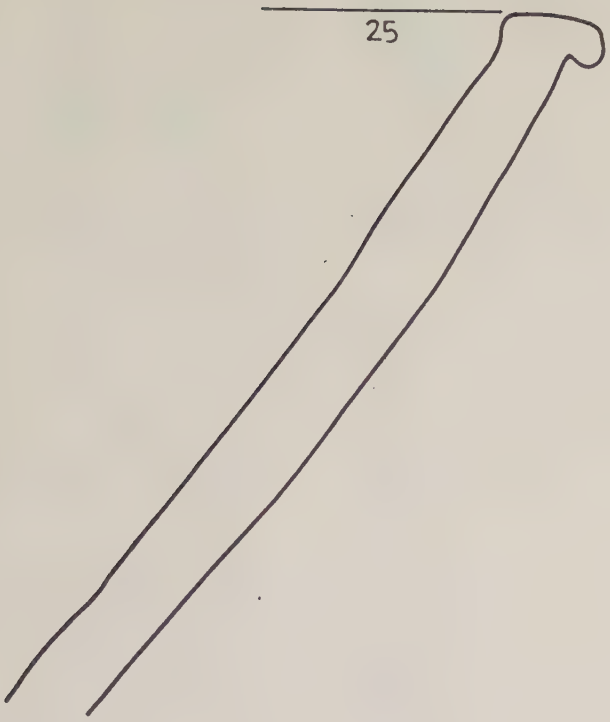

9

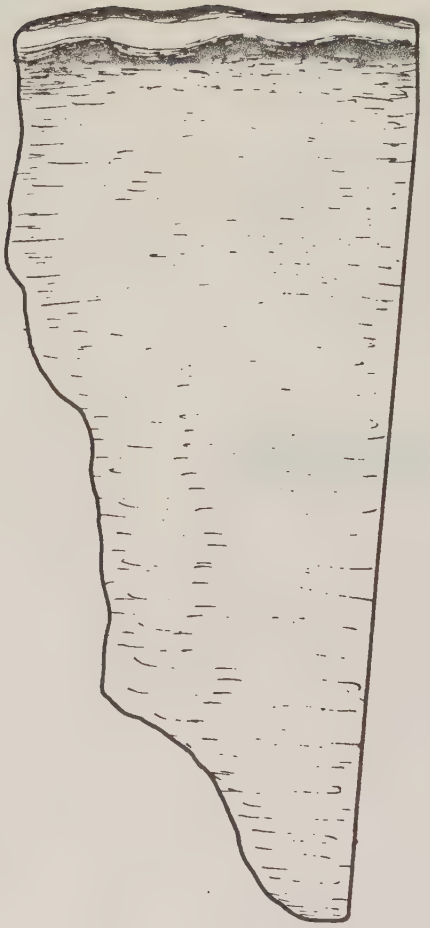



10

Ghrubba East

| No. | Ident. | Form | Surf. Treat | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 11. | 173.430.2 | krater | rope-moulding | --- | 1 | h | 2.5YR6/4 light reddish brown | --- |
| 12. | 173.430.3 | krater | --- | light sc | 1 | m | 5YR7/4 pink | 1.Mellaart 1956, Ghrubba fig.4:18<br>2.Contenson 1960a, Tell esh-Shuneh fig.3:8. |
| 13. | 173.430.1 | krater | thumb-identation | --- | 1 | m | 5YR7/3 pink | --- |



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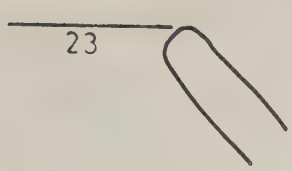
13

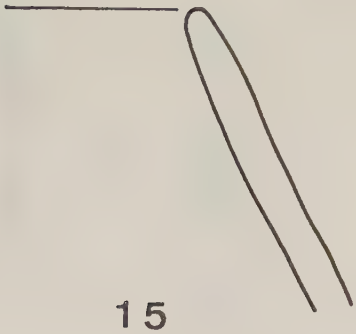
Ghrubba East

GHRUBBA EAST Pl. 46

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 14. | 173.430.21 | hole-mouth jar | --- | --- | s | h | 5YR7/4 pink | 1.Mellaart 1956, Ghrubba fig.4:23.<br>2.Contenson 1960a, Tell esh.Shuneh fig.4:5. |
| 15. | 173.430.14 | hole-mouth jar | --- | --- | s | h | 5YR7/4 pink | 1.Mellaart 1956, Ghrubba fig.4:26.<br>2.Ben-Dor 1936, Jericho pl.XXIX:1. |
| 16. | 173.430.28 | jar | --- | dark | l | m | 7.5R6/4 pale red | 1.Mellaart 1956, Ghrubba fig.4:27.<br>2.Droop 1935,Jericho pl.XLV:33?. |
| 17. | 173.430.16 | jar | --- | --- | s | h | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.12:4.<br>2.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.33:10. |
| 18. | 173.430.18 | jar | paint,5R4/4 weak red | --- | l | m | 5YR7/3 pink | 1.Contenson 1960a, Tell Abu Habil fig.24:1. |
| 19. | 173.430.10 | --- | --- | --- | l | so | 5YR7/4 pink | 1.Ben-Dor 1936,Jericho pl.XXX:21. |
| 20. | 173.431.12 | jar | --- | light pitted | s | m | 7.5R6/6 light red | 1.Contenson 1960a, Tell esh-Shuneh fig.8:3. |
| 21. | 173.430.7 | jar | --- | sc | m | so | 5YR7/4 pink | 1.Contenson 1960a, Tell esh-Shuneh fig.8:6.<br>2.Loud 1948,Megiddo pl.2:18.<br>3.Ben-Dor 1936, Jericho pl.XXX:14. |
| 22. | 173.430.19 | jar | --- | --- | s | m | 7.5R6/6 light red | 1.Contenson 1960a,Tell esh-Shuneh fig.8:9.<br>2.Ben-Dor 1936,Jericho pl.XXX:14. |
| 23. | 173.431.11 | jar | --- | dark pitted | m | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:8. |
| 24. | 173.430.8 | jar | --- | --- | m | h | 5YR8/2 pinkish white | 1.Contenson 1960a,Tell esh-Shuneh fig.8:1.<br>2.Droop 1935,Jericho pl.XLV:28. |
| 25. | 173.430.6 | jar | --- | --- | m | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:13. |
| 26. | 173.430.5 | jar | --- | --- | m | h | 5YR7/3 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:9. |
| 27. | 173.430.9 | jar | --- | --- | l | h | 5YR7/3 pink | --- |




14



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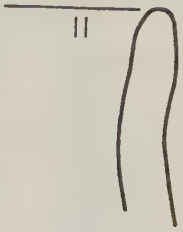
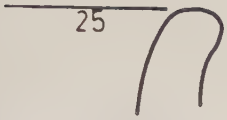



16

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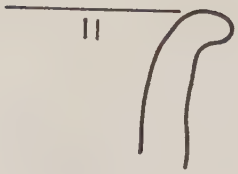

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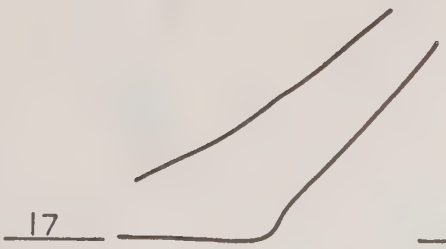
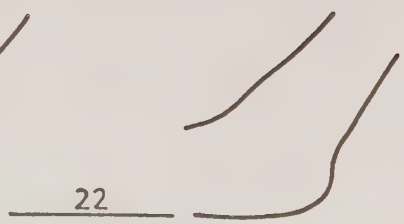



26

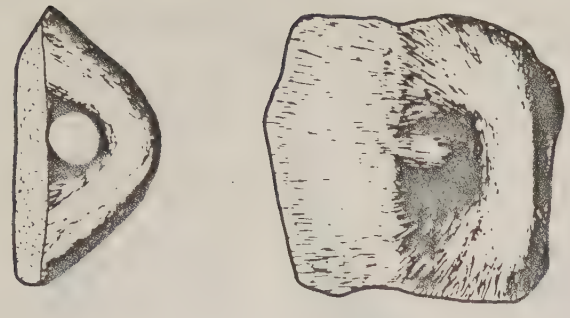



27

Ghrubba East

GHRUBBA EAST Pl. 47

| No. | Ident. | Form | Surf. Treat. | ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 28. | 173.430.20 | bowl | --- | pitted | l | so | 5YR7/4 pink | 1.Ben-Dor 1936, Jericho pl.XXX:1.<br>2.Fitzgeral 1935, Beth-Shan pl.II:17. |
| 29. | 173.430.21 | bowl | --- | pitted | l | so | 5YR7/4 pink | 1.Contenson 1960a, Tell es-Sa'idiyeh el-Tahta fig.32:6.<br>2.Glueck 1951,Tell Abu Habil pl.121:4.<br>3.Ben-Dor 1936,Jericho pl.XXX:5. |
| 30. | 173.430.22 | bowl | --- | --- | l | m | 5YR7/4 pink | 1.Ben-Dor 1936, Jericho pl.XXX:1.<br>2.Fitzgerald 1935, Beth-Shan pl.II:17. |
| 31. | 173.431.2 | bowl? | slip,10R4/4 weak red | --- | l | m | 5YR7/4 pink | 1.Perrot 1964, Munhatta fig.6:9.<br>2.Ben-Dor 1936, Jericho pl.XXX:4. |
| 32. | 173.430.23 | jar | --- | --- | l | so | 5YR7/4 pink | 1.Glueck 1951,Tell Abu Habil pl.121:7. |
| 33. | 173.431.13 | jar | --- | pitted | m | m | 5YR7/4 pink | 1.Fitzgerald 1935, Beth-Shan pl.II:23.<br>2.Ben-Dor 1936,Jericho pl.XXX:7. |



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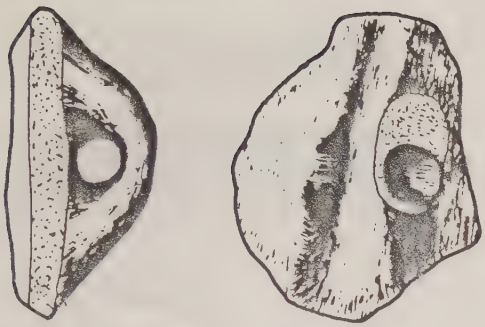

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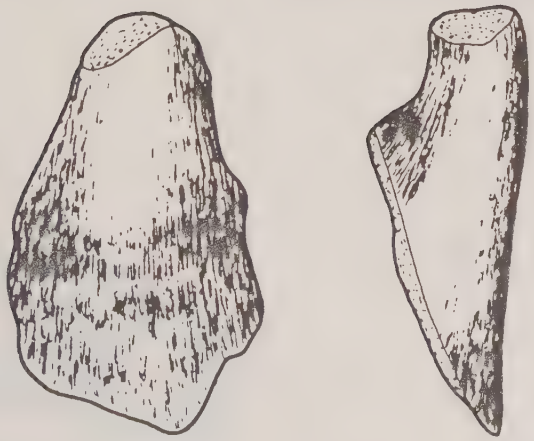
31

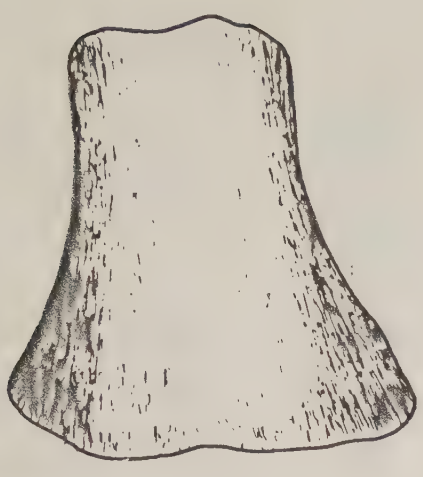


32

33

Ghrubba East

| No. | Ident. | Form | Surf. Treat. | ware Core | Incl. | Hard. | Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 34. | 173.430.4 | spout | wash | --- | l | m | 5YR7/4 pink | 1.Kaplan 1958a, Tuleilat Batashi pl.10:9.<br>2.Loud 1948, Megiddo pl.2:54.<br>3.Ben-Dor 1936, Jericho pl.XXXII:31. |
| 35. | 173.430.25 | --- | paint,7.5R4/6 red<br>burnishing | --- | m | so | 5YR7/4 pink | --- |
| 36. | 173.430.26 | --- | paint,7.5R4/6 red<br>wash | --- | m | m | 5YR7/4 pink | 1.Kaplan 1958a, Tuleilat Batashi pl.7:7.<br>2.Loud 1948, Megiddo pl.2:35. |
| 37. | 173.430.24 | --- | paint,2.5YR4/6 red | --- | l | so | 5YR8/3 pink | 1.Kaplan 1958a, Tuleilat Batashi pl.7:7.<br>2.Loud 1948, Megiddo pl.2:35. |
| 38. | 173.430.27 | --- | paint,2.5YR5/4 reddish brown | --- | m | m | 5YR7/3 pink | 1.Kaplan 1958a, Tuleilat Batashi pl.7:7.<br>2.Loud 1948, Megiddo pl.2:35. |
| 39. | 173.431.8 | --- | Thumb-identation | light pitted | s | so | 10R6/6 light red | 1.Loud 1948, Megiddo pl.2:48, 49. |
| 40. | 173.431.3 | --- | rope-moulding | --- | s | m | 2.5YR6/4 light reddish brown | 1.Contenson 1960a, Tell esh-Shuneh fig.4:15.<br>2.Loud 1948, Megiddo pl.2:48, 49. |



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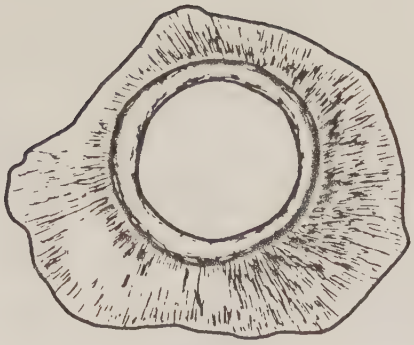

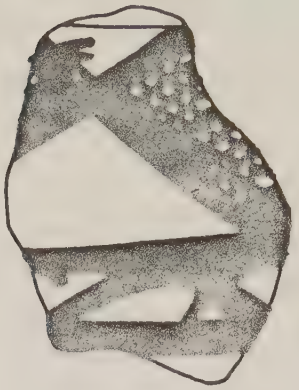

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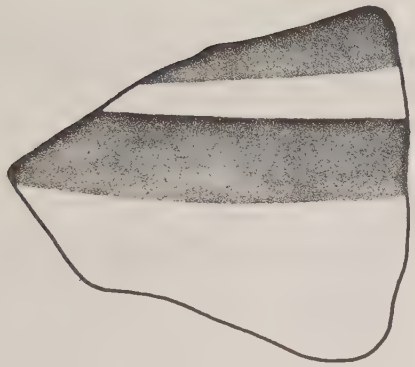

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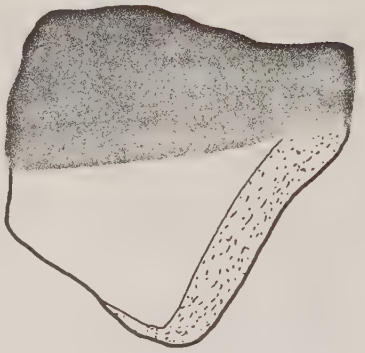

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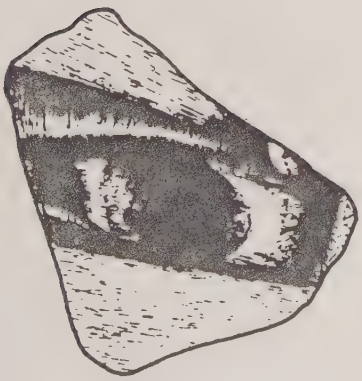

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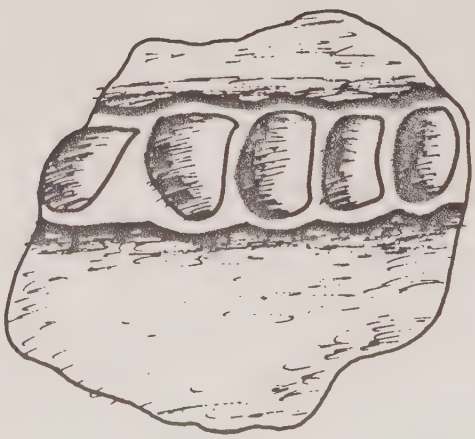

40

Ghrubba East

ES-SADD EL-GHARBI Pl. 49

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 206.484.8 | hole-mouth | --- | --- | l | m | ext.: 5YR4/3 reddish brown<br>int.: 5YR4/1 dark gray | 1.Mellaart 1956, Ghrubba fig.4:35<br>2.Perrot 1964, Munhatta fig.3: 14 |
| 2. | 206.484.11 | bowl | wash | light pitted | s | m | 7.5YR7/4 pink | 1.Mellaart 1956, Ghrubba fig.4:27 |
| 3. | 206.484.12 | bowl | --- | --- | l | so | 2.5YR5/4 reddish | 1.Mellaart 1956, Ghrubba fig.4:23 |
| 4. | 206.484.5 | cup | pierced | dark sc pitted | l | so | 5YR7/3 pink | 1.Mellaart 1956, Ghrubba fig.4:16 |
| 5. | 206.484.3 | bowl | --- | pitted | s | h | 10YR6/4 light yellowish brown | 1.Mellaart 1956, Ghrubba fig.4:3 |
| 6. | 206.484.4 | krater | rope-moulding | pitted | l | m | 5YR6/1 gray | 1.Mellaart 1956, Ghrubba fig.4:24 |
| 7. | 206.484.7 | jar | --- | pitted | l | m | 2.5YR6/4 light reddish brown | |
| 8. | 206.484.9 | globular jar | --- | --- | s | m | ext.: 10YR6/2 light brownish gray | 1.Mellaart 1956, Ghrubba fig.4:26 |
| 9. | 206.484.10 | globular jar | wash | --- | s | h | 10YR6/3 pale brown | 1.Mellaart 1956, Ghrubba fig.4:26<br>2.Perrot 1964, Munhatta fig.3: 15. |

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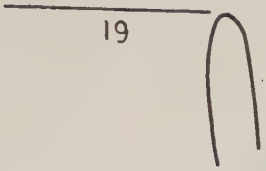


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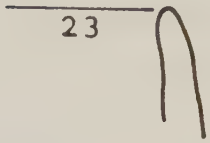


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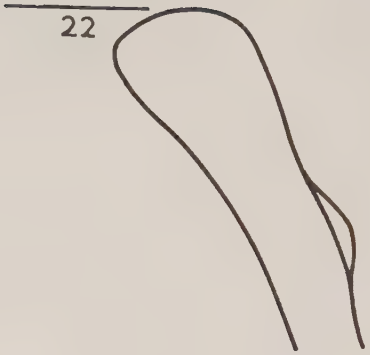


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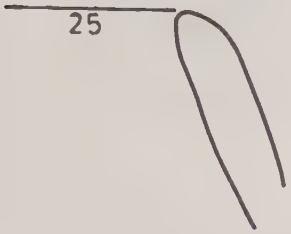


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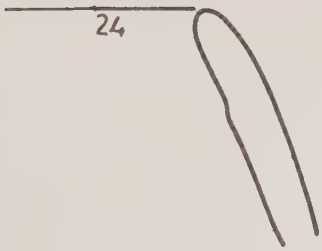


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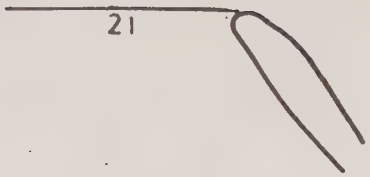
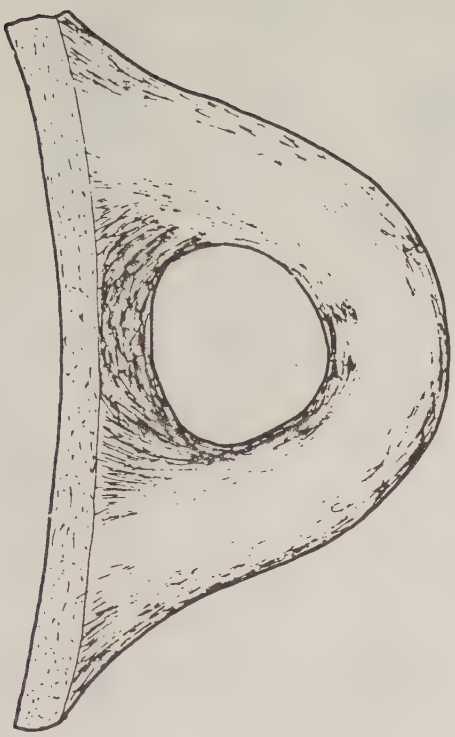



9

es-Sadd el-Gharbi

ES-SADD EL-GHARBI Pl. 50

| No. | Ident. | Form | Surf. Treat. | ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 10. | 206.484.1 | jar | --- | --- | 1 | m | ext.: 10YR7/4 very pale brown; int.: 10R6/6 light red | 1.Contenson 1960a,Tell esh-Shuneh fig.7:4.<br>2.Fitzgerald 1935, Beth-Shan pl.II:16. |
| 11. | 206.484.2 | jar? | --- | sc | m | so | 10R5/6 light red | --- |
| 12. | 206.484.6 | jar | --- | --- | 1 | m | 7.5YR4/2 dark brown | 1.Contenson 1960a,Tell esh-Shuneh fig.7:3. |
| 13. | 206.484.13 | --- | slip,7.5R5/6 red<br>burnishing | --- | 1 | m | 10R6/6 light red | --- |



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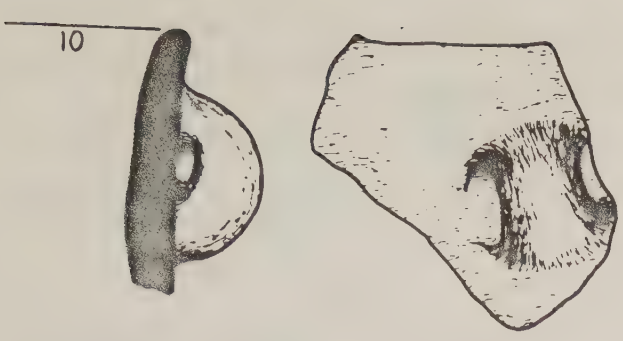
13

es-Sadd el-Gharbi

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 1. | 214.496.19 | jar? | --- | --- | s | m | 10R6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:28. |
| 2. | 214.496.27 | bowl | --- | --- | s | h | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:8.<br>2.Glueck 1951,Tell Abu Habil pl.121:19.<br>3.Loud 1948,Megiddo pl.2:11 |
| 3. | 214.496.31 | bowl | wash | sc | l | so | 7.5R6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:4.<br>2.Contenson 1960a,Tell esh-Shuneh fig.3:17.<br>3.Glueck 1951,Tell Abu Habil pl.121:15. |
| 4. | 214.496.20 | jar | --- | sc | l | so | 10R6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:38.<br>2.Contenson 1960a,Tell esh-Shuneh fig.4:2.<br>3.Glueck 1951,Tell Abu Habil pl.121:18,24.<br>4.Loud 1948,Megiddo pl.1:4. |
| 5. | 214.496.21 | bowl | --- | pitted | m | m | 7.5YR6/6 light red | 1.Contenson 1960a,Tell Abu Habil fig.23:4. |
| 6. | 214.496.26 | jar | --- | --- | s | m | 10YR7/2 light gray | --- |
| 7. | 214.496.28 | jar | --- | --- | s | m | 10R6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:26.<br>2.Ben-Dor 1936,Jericho pl.XXXII:34C. |
| 8. | 214.496.25 | jar | wash | --- | s | h | 7.5R6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:44.<br>2.Ben-Dor 1936,Jericho pl.XXXII:23A. |
| 9. | 214.496.24 | jar | --- | --- | l | m | 10R6/6 light red | 1.Mellaart 1956,Ghrubba fig.4:31.<br>2.Contenson 1960a,Tell esh-Shuneh fig.5:7.<br>3.Ben-Dor 1936,Jericho pl.XXXII:25A.<br>4.Kaplan 1958b,Wadi Rabbah fig.5:7.<br>5.de Vaux 1947,Tell el-Far'ah fig.1:8. |
| 10. | 214.496.29 | jar | --- | --- | s | m | 2.5YR6/4 light reddish brown | 1.Mellaart 1956,Ghrubba fig.4:35. |
| 11. | 214.496.23 | jar | wash | light | l | m | 10YR7/1 light gray | 1.Mellaart 1956,Ghrubba fig.4:34.<br>2.Contenson 1960a,Tell esh-Shuneh fig.11:5.<br>3.Loud 1948,Megiddo pl.1:16,17.<br>4.Ben-Dor 1936,Jericho pl.XXXII:25B. |
| 12. | 214:496.22 | jar | rope-moulding | light | l | so | 5YR7/4 pink | 1.Mellaart 1956,Ghrubba fig.4:36.<br>2.de Vaux 1961,Tell el-Far'ah fig.1:9. |

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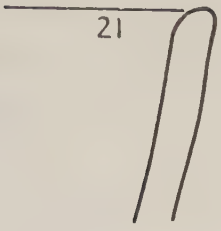


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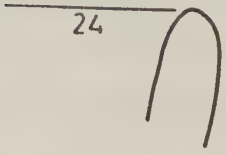


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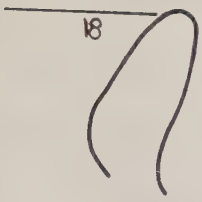


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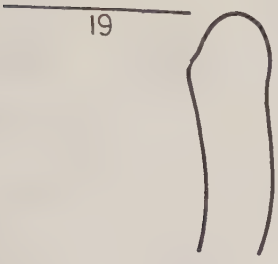


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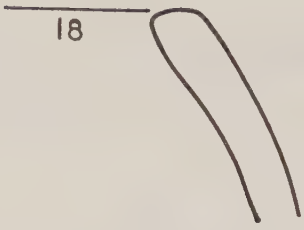


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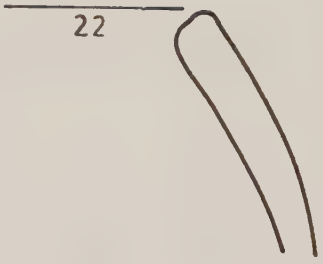


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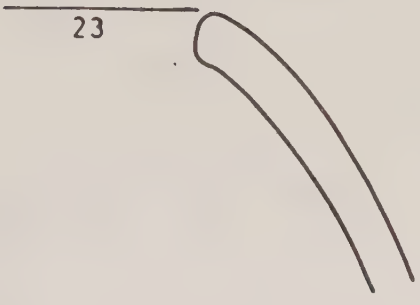


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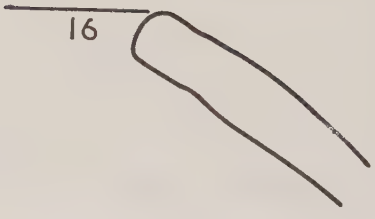


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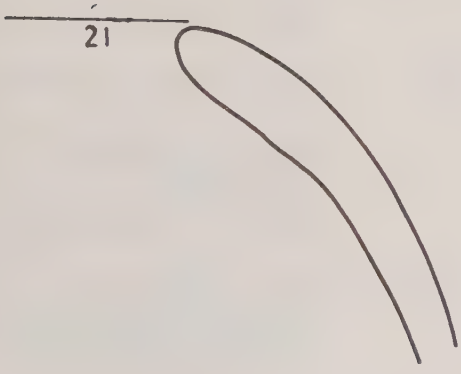


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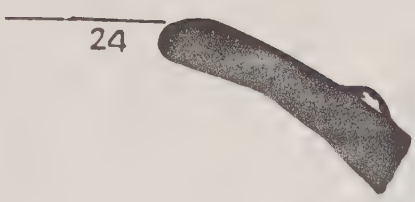


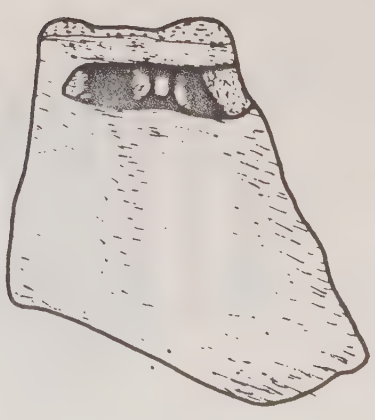

12

Wadi el-Maliḥ

| No. | Ident. | Form | Surf. Treat. | Ware: Core | Incl. | Hard. | Color | Parallels |
|---|---|---|---|---|---|---|---|---|
| 13. | 214.496.7 | bowl | --- | light | s | h | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:1,2.<br>2.Stekelis 1950-51,Sha'ar ha-Golan fig.13:16.<br>3.Loud 1948,Megiddo pl.2:16. |
| 14. | 214.496.4 | bowl | slip,10R5/6 red | sc | s | m | 10R6/6 light red | 1.Contenson 1960a,Tell esh-Shuneh fig.8:1,2.<br>2.Stekelis 1950-51,Sha'ar ha-Golan fig.13:16.<br>3.Loud 1948,Megiddo pl.2:16. |
| 15. | 214.496.3 | bowl | mat-impressions | --- | l | so | 10R6/4 pale red | 1.Contenson 1960a,Tell esh-Shuneh fig.8:1,2.<br>2.Stekelis 1950-51,Sha'ar ha-Golan fig.13:16.<br>3.Loud 1948,Megiddo pl.2:16. |
| 16. | 214.496.6 | jar | burnishing | pitted | l | m | 5YR8/2 pinkish white | 1.Contenson 1960a,Tell esh-Shuneh fig.8:8.<br>2.Stekelis 1950-51,Sha'ar ha-Golan fig.13:3-5. |
| 17. | 214.496.10 | jar | --- | light | s | m | 5YR7/4 pink | 1.Contenson 1960a,Tell esh-Shuneh fig.8:9.<br>2.Stekslis 1950-51,Sha'ar ha-Golan fig.13:3-5.<br>3.Loud 1948,Megiddo pl.2:18. |
| 18. | 214.496.8 | jar | --- | dark | s | m | ext.: 5YR7/4 pink<br>int.: 5YR6/1 gray | 1.Contenson 1960a,Tell esh-Shuneh fig.8:6.<br>2.Glueck 1951,Tell Abu Habil pl.122:17.<br>3.Loud 1948,Megiddo pl.2:20. |
| 19. | 214.496.5 | jar | mat-impressions | light | s | so | 10YR6/4 pale red | 1.Stekelis 1950-51,Sha'ar ha-Golan fig.13:3-5.<br>2.Loud 1948,Megiddo pl.2:21. |
| 20. | 214.496.30 | jar | incising | dark | s | so | 5YR7/4 pink | 1.Stekelis 1950-51,Sha'ar ha-Golan pl.1:3.<br>2.Kaplan 1958b,Wadi Rabbah fig.6:6.<br>3.Glueck 1951,Khirbet 'Ain Duq pl.15:1-7. |
| 21. | 214.496.2 | jar | mat-impressions | --- | l | so | 5YR8/3 pink | 1.Loud 1948,Megiddo pl.2:16,17.<br>2.Ben-Dor 1936,Jericho pl.XXXII:33C. |

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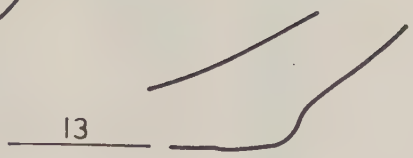


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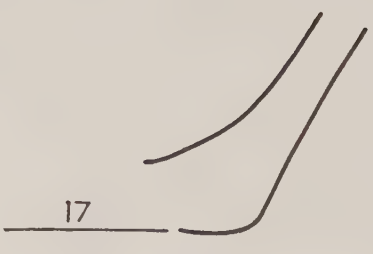


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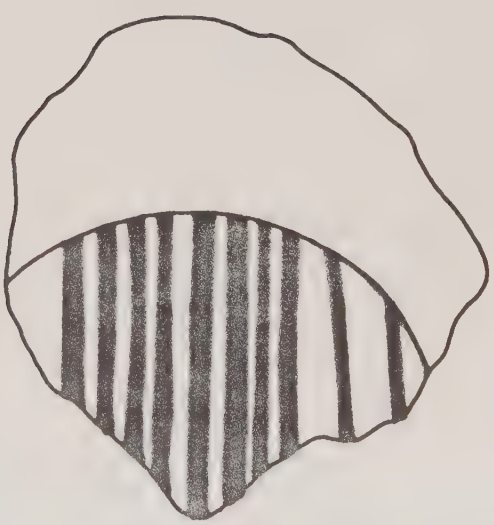
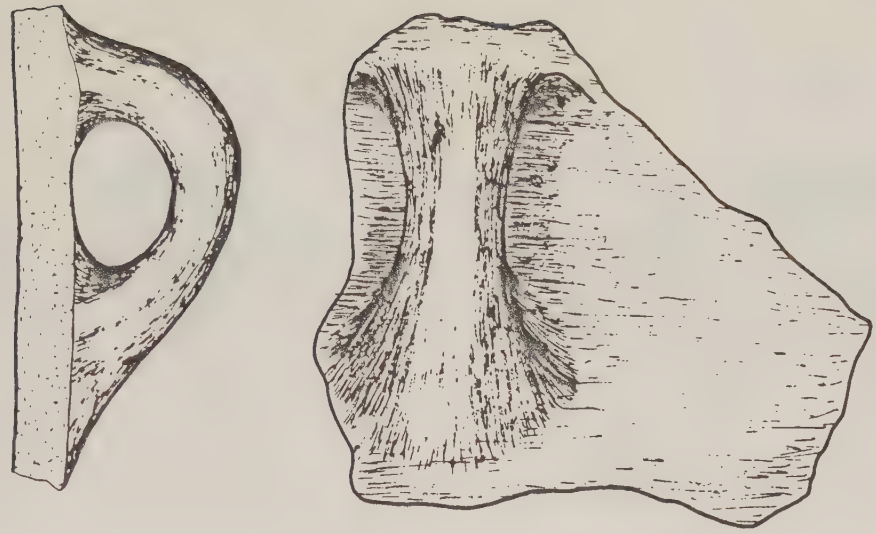


21

Wadi el-Malih

| No. | Ident. | Form | Surf. Treat. | Ware | | | | Parallels |
|---|---|---|---|---|---|---|---|---|
| | | | | Core | Incl. | Hard. | Color | |
| 22. | 214.496.17 | jar | --- | --- | l | so | 5YR8/2 pinkish white | 1.Fitzgerald 1935,Beth-Shan pl.II:20.<br>2.Contenson 1960a,Tell esh-Shuneh fig.7:5.<br>3.de Vaux 1961,Tell el-Far'ah fig.1:20. |
| 23. | 214.496.16 | jar | --- | --- | s | m | 5YR8/2 pinkish white | 1.Glueck 1951,Tell Abu Habil pl.121:11.<br>2.de Vaux 1961,Tell el-Far'ah fig.1:21. |
| 24. | 214.496.11 | jar | --- | --- | m | m | 10R6/6 light reddish brown | 1.Fitzgerald 1935,Beth-Shan pl.II:22. |
| 25. | 214.496.13 | jar | --- | --- | m | so | 5YR7/4 pink | --- |
| 26. | 214.496.18 | jar | --- | --- | m | h | 2.5YR6/4 light reddish brown | 1.Contenson 1960a,Tell esh-Shuneh fig.7:7,9.<br>2.Fitzgerald 1935,Beth-Shan pl.II:21. |
| 27. | 214.496.14 | jar | --- | --- | s | h | 5YR8/3 pink | --- |
| 28. | 214.496.12 | jar | wash | --- | s | m | 7.5YR5/6 red | 1.Loud 1948,Megiddo pl.2:55. |
| 29. | 214.496.15 | jar | --- | --- | l | m | 10R5/4 weak red | --- |



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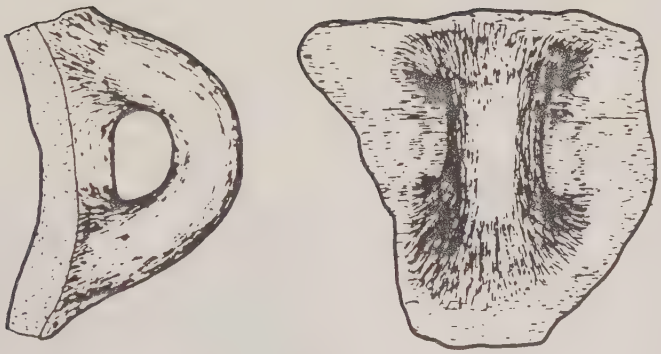

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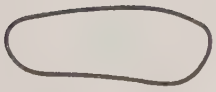

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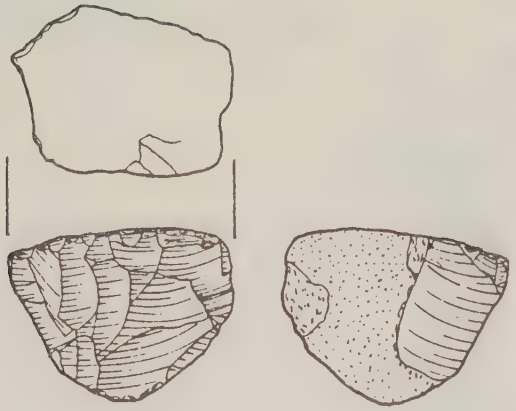
Wadi el-Maliḥ



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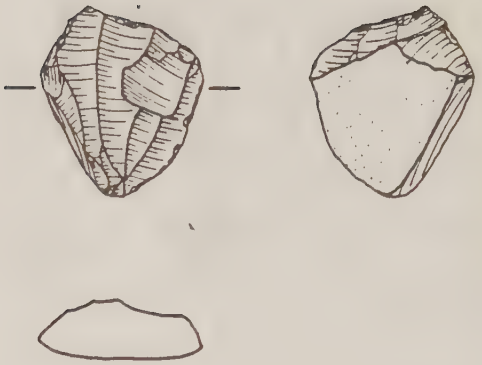

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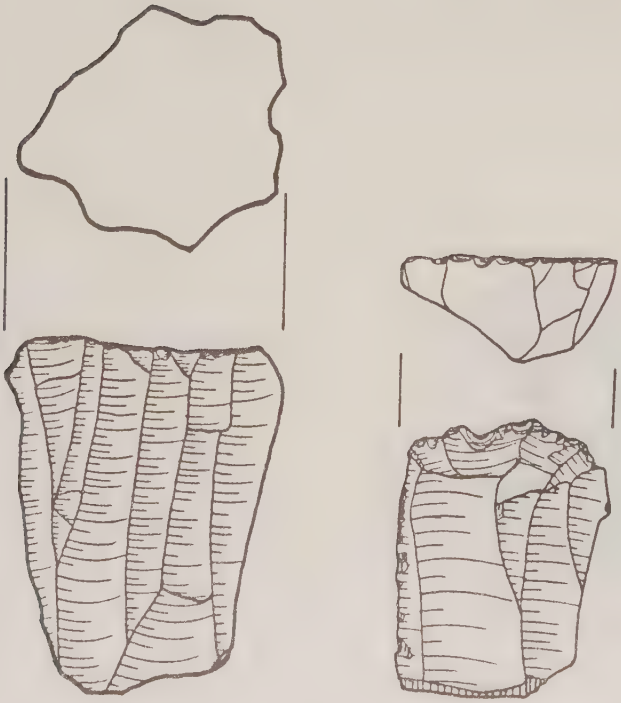
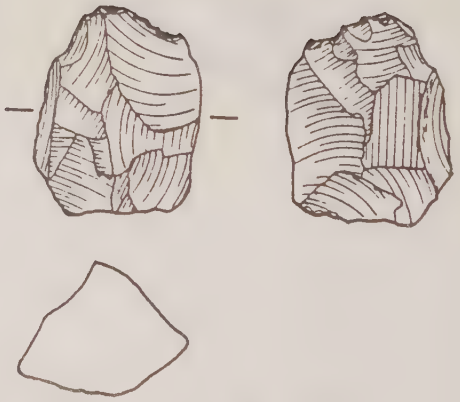


3

4



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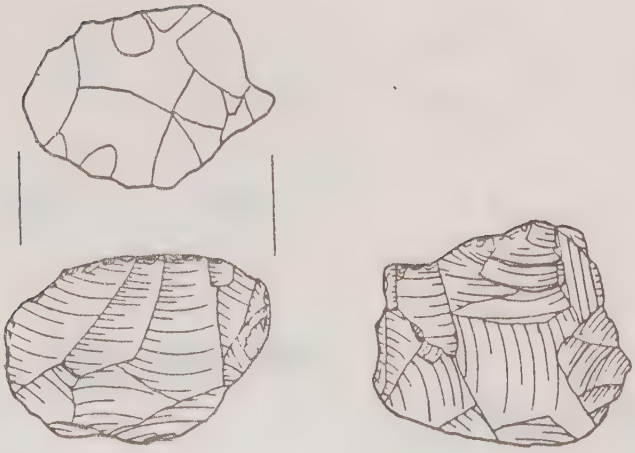

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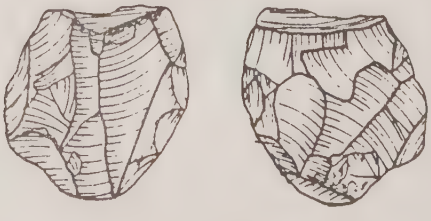

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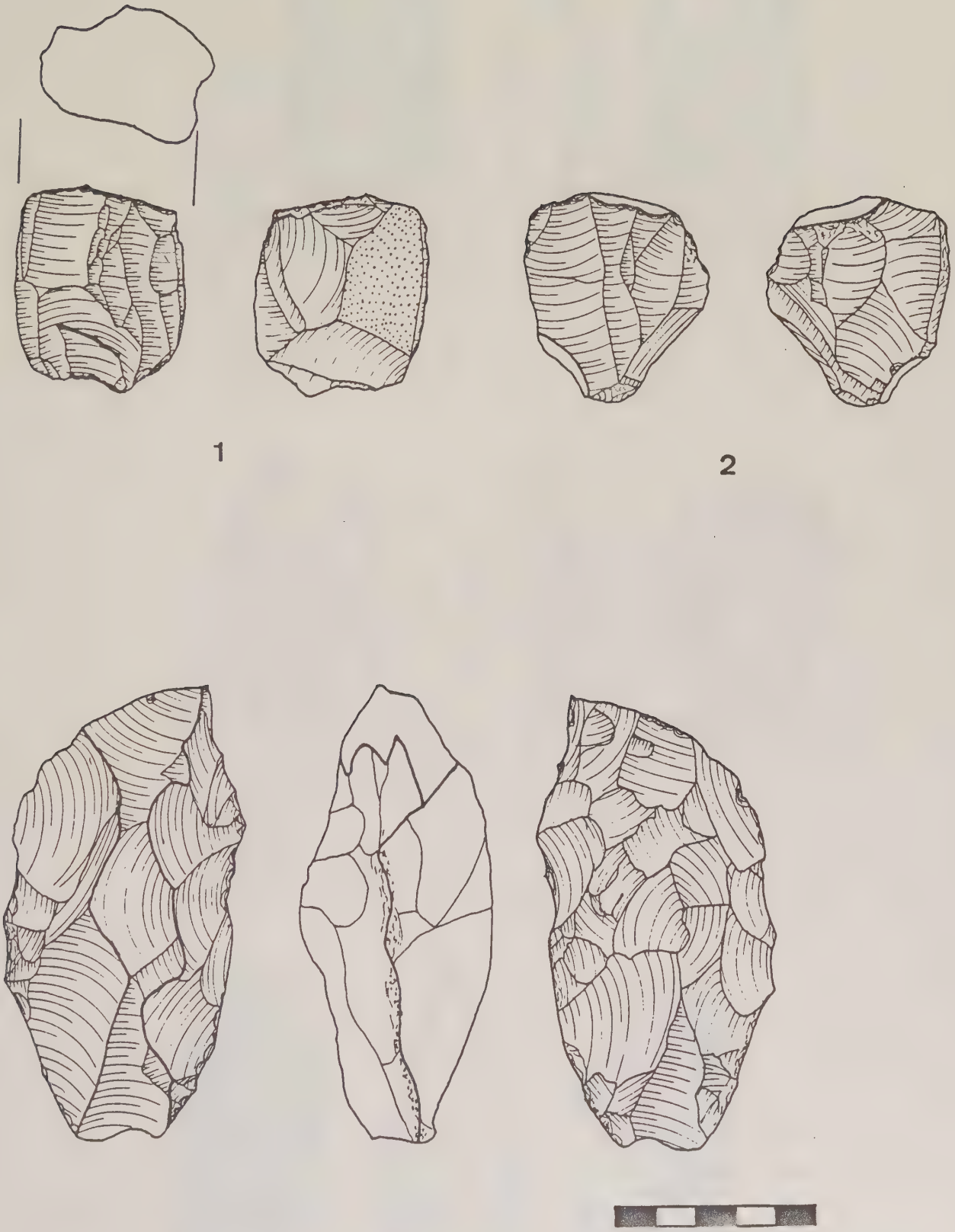
Cores



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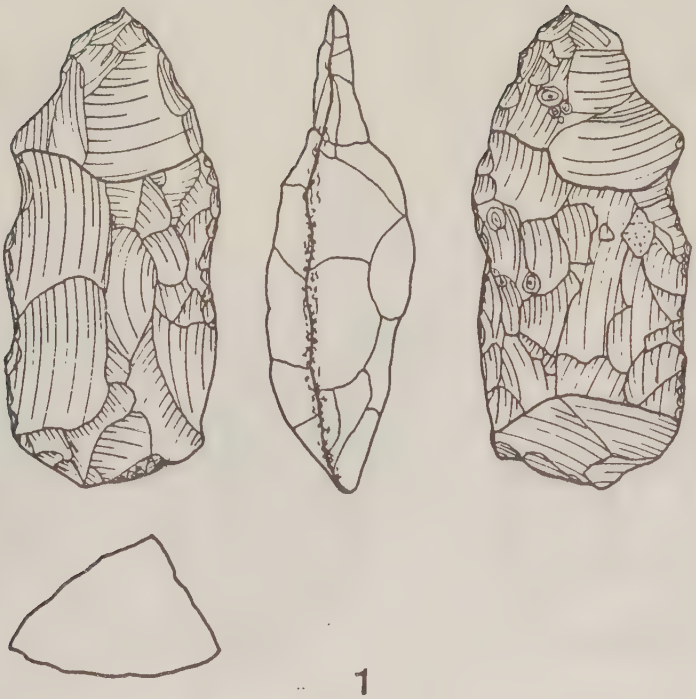
2

3

Cores ( Nos. 1-2)
Celt ( No. 1)



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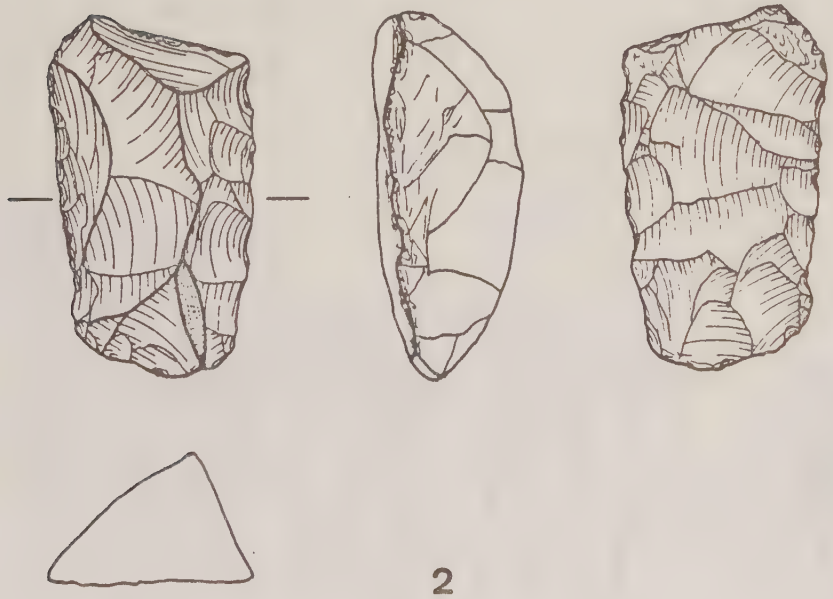

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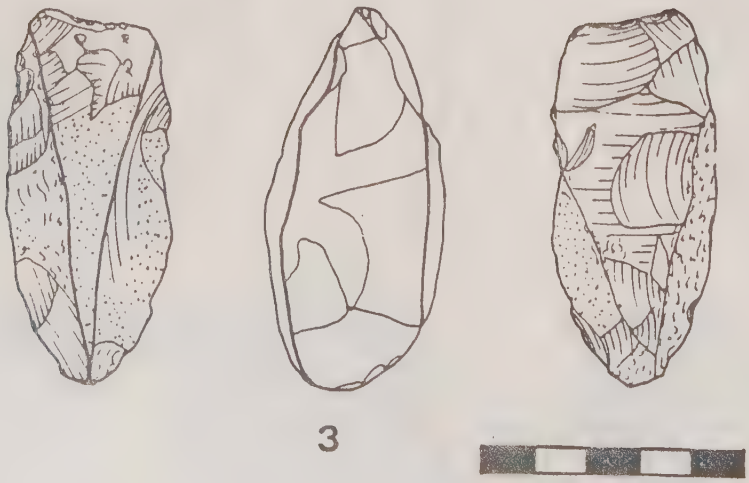

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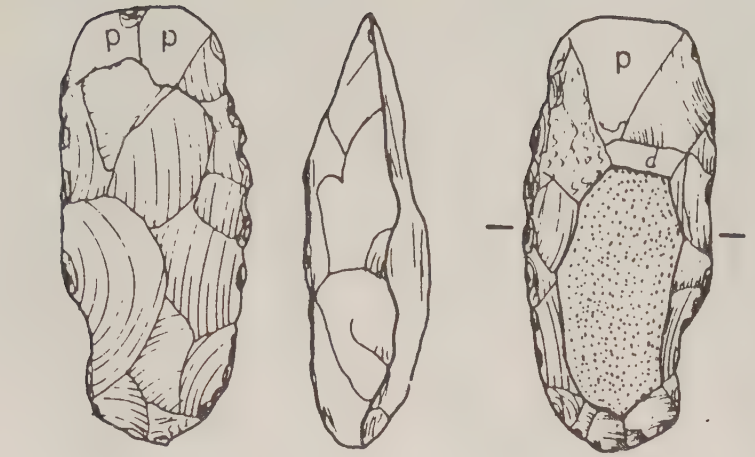
Celts

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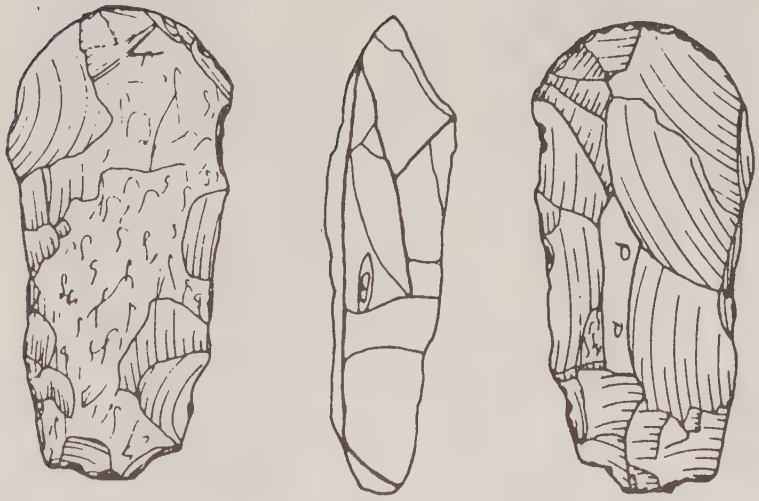


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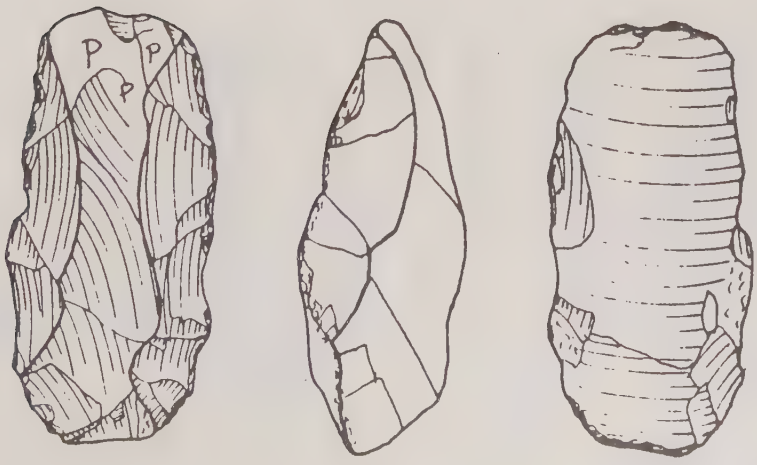


3

Celts

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2

3

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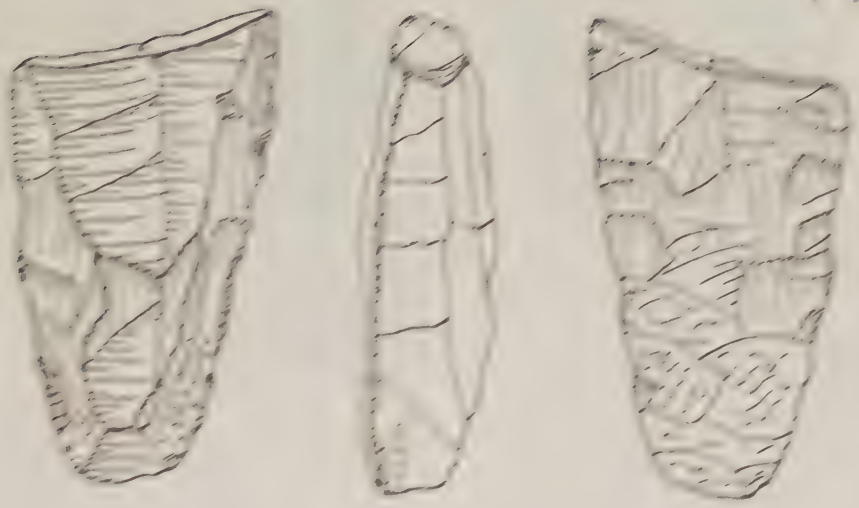

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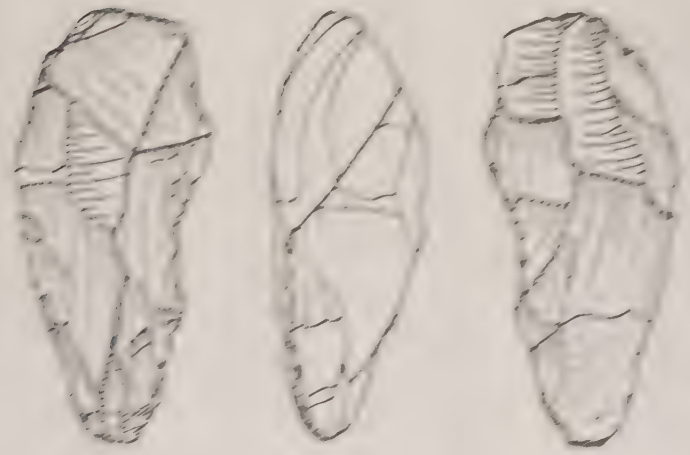

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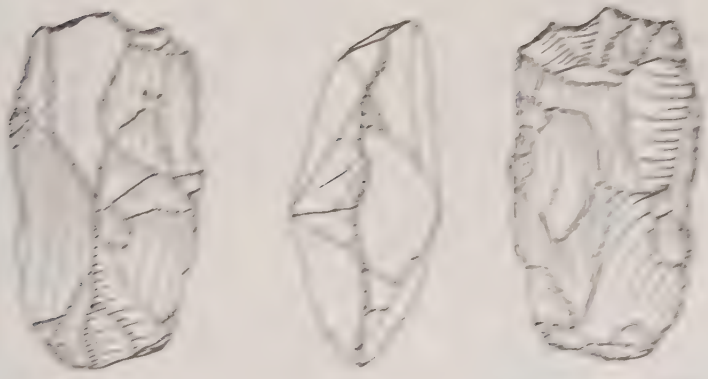

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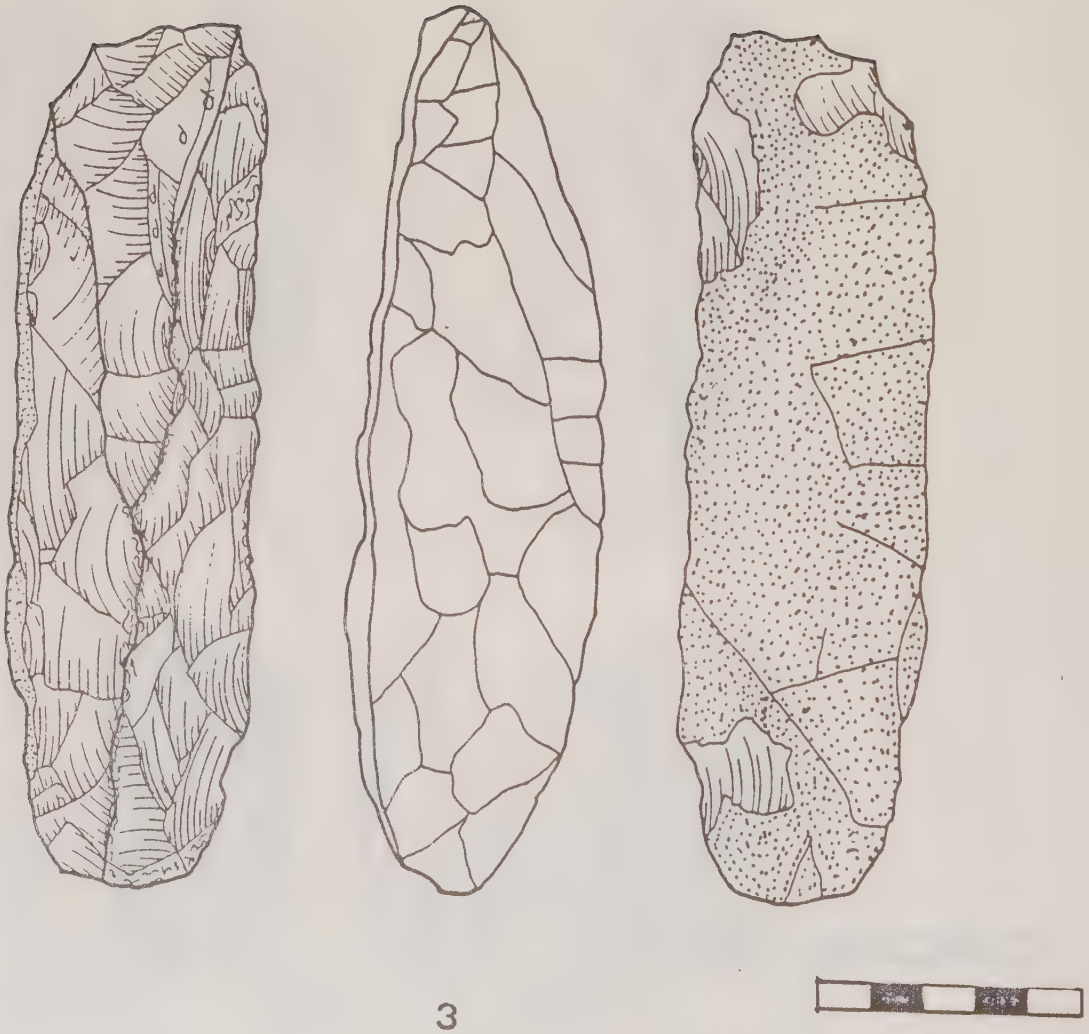

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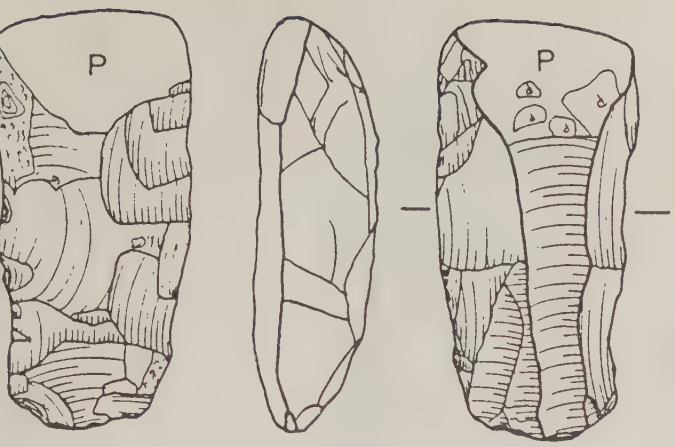


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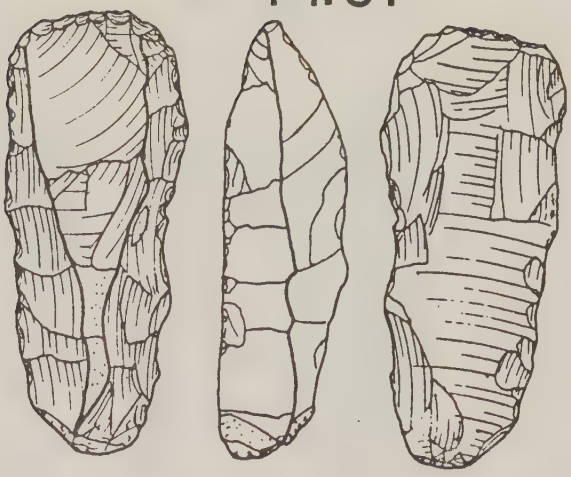

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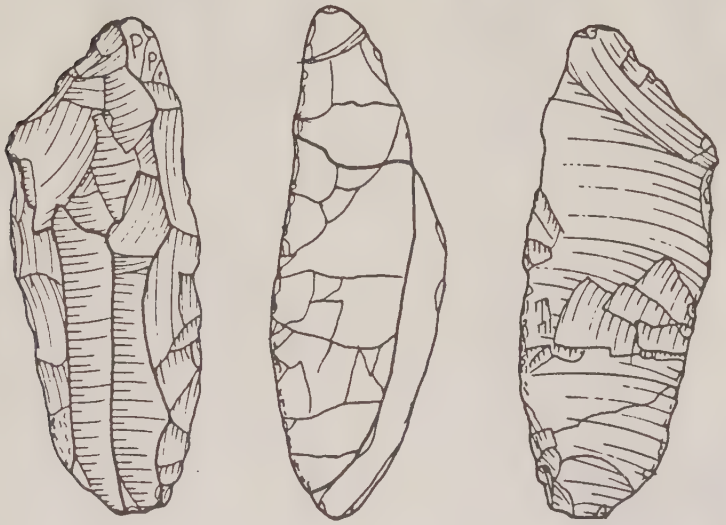


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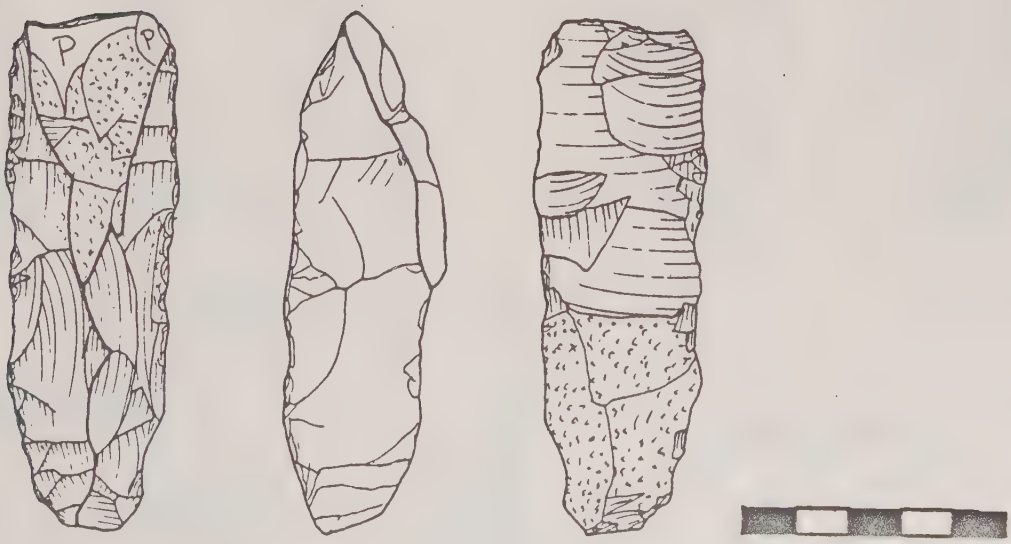


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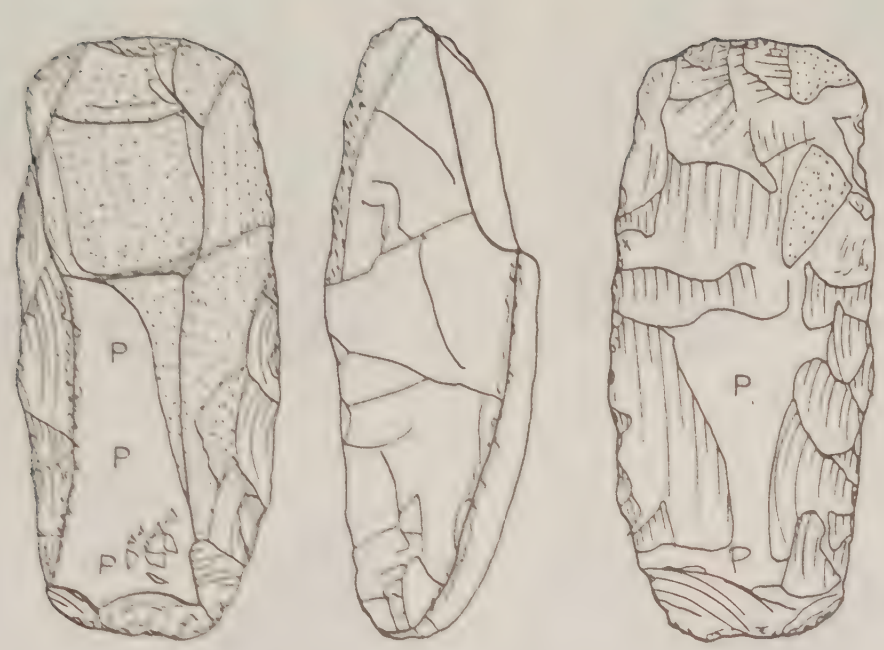


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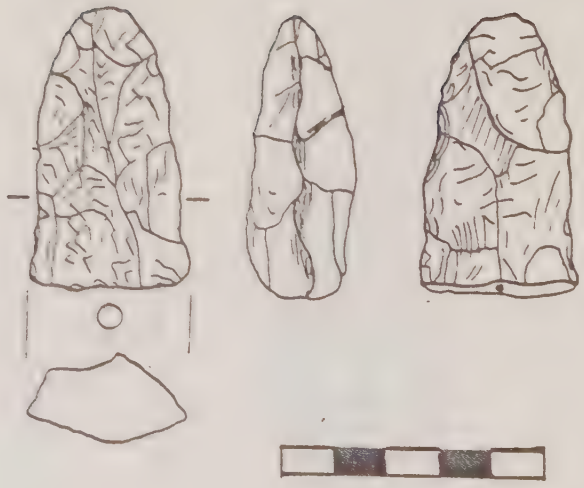
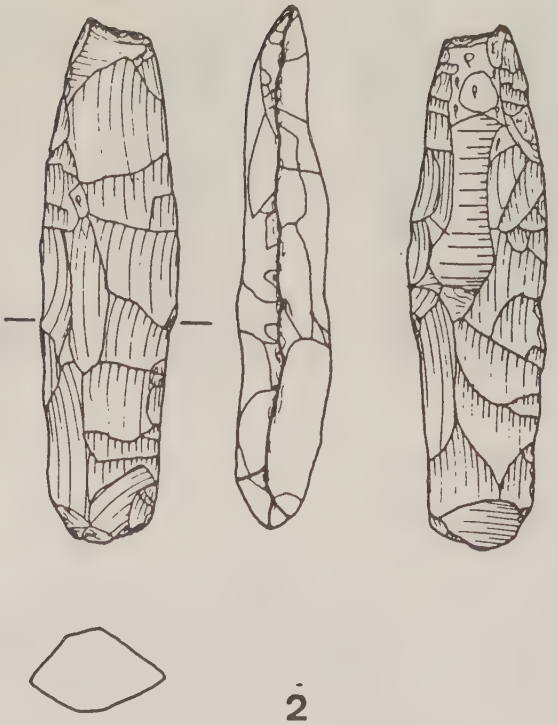


3

Hammerstone (No. 1)
Chisels (Nos. 2-3)

1



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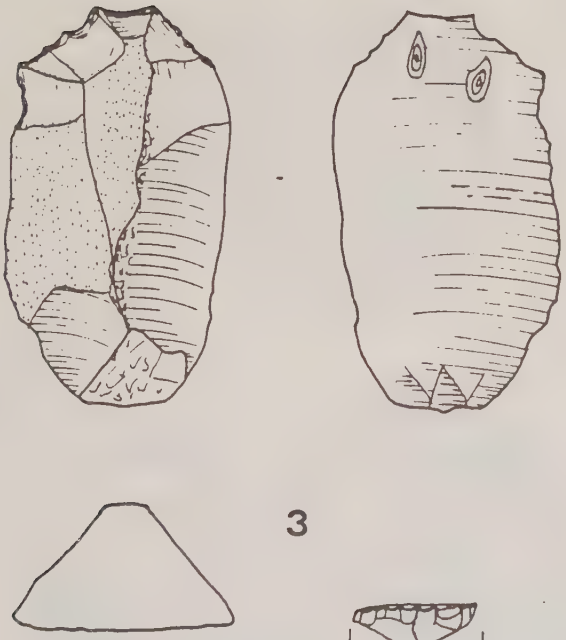

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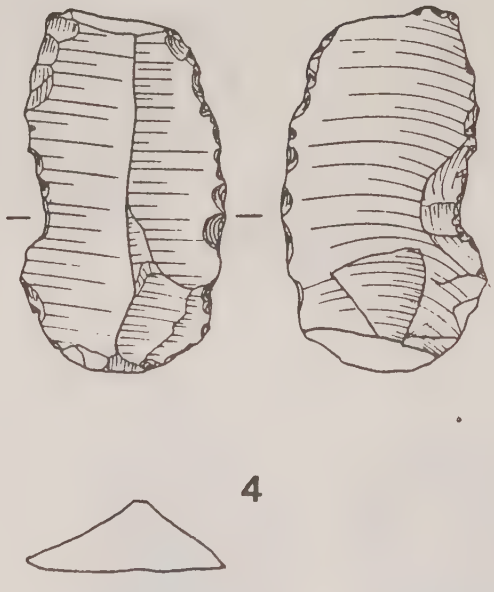

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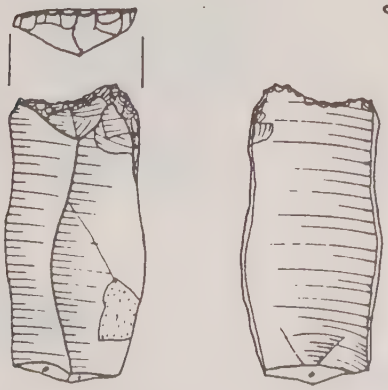
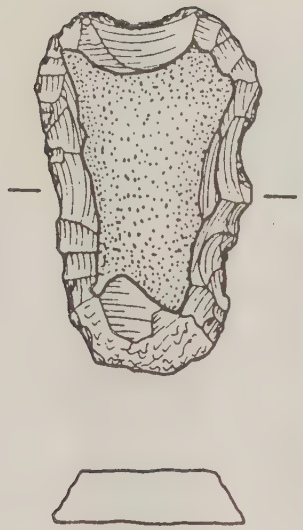


5

Chisels (Nos. 1-2)

Notched-scrapers (Nos. 3-5)



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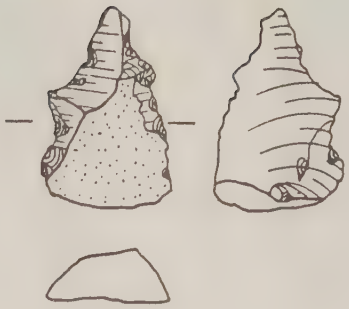

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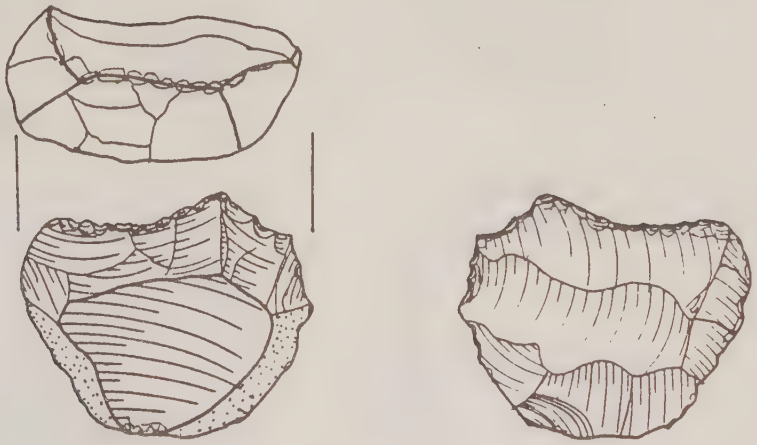

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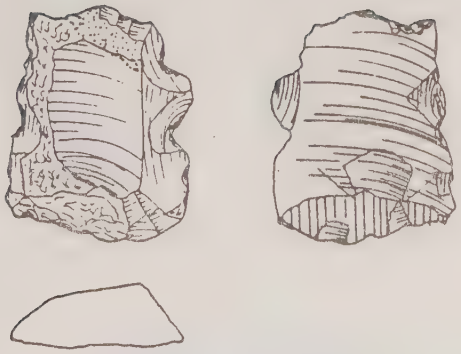

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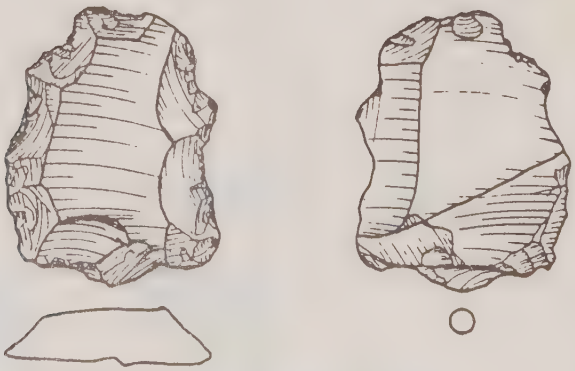

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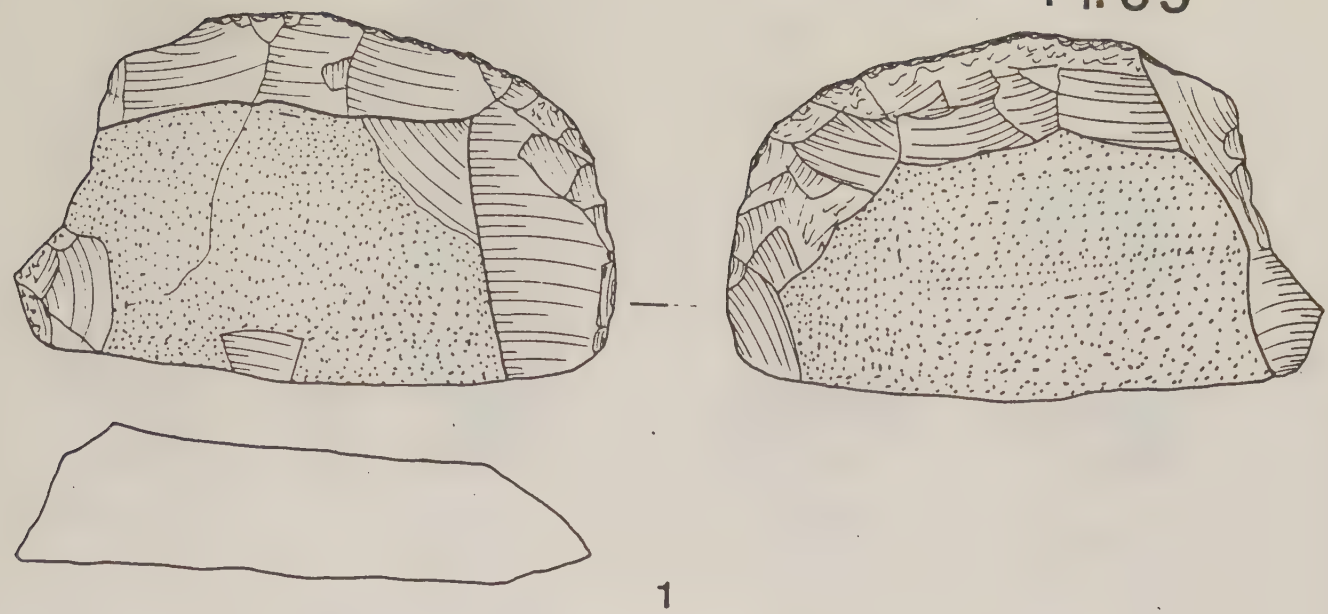
Notched-scrapers



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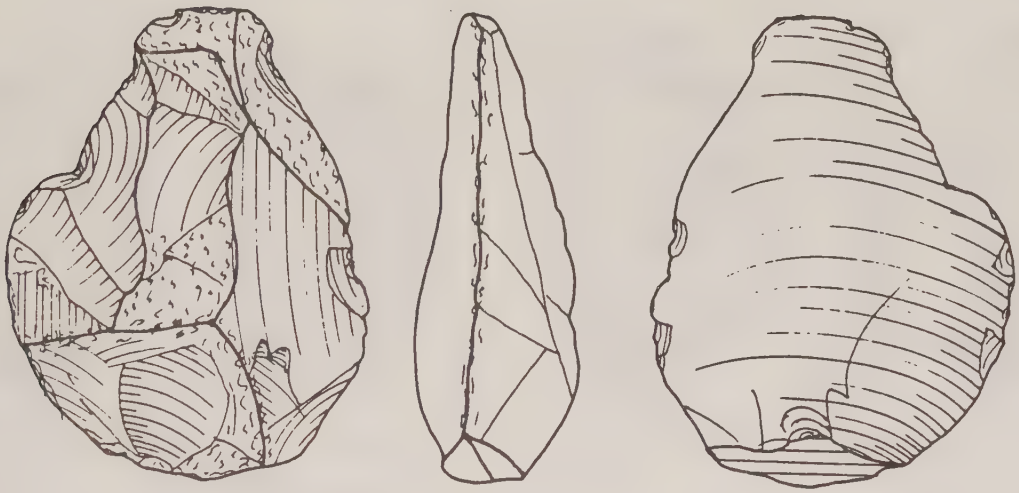

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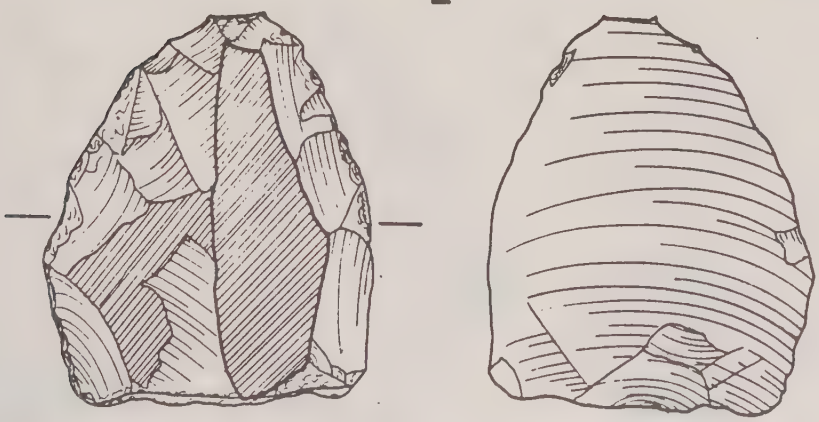
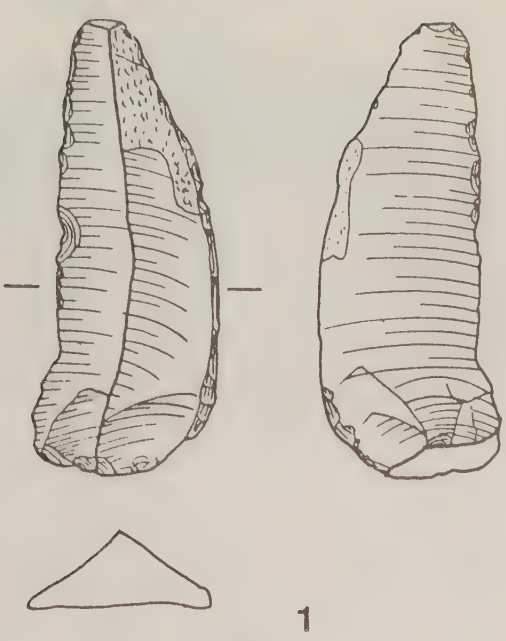


3

Side-scrapers



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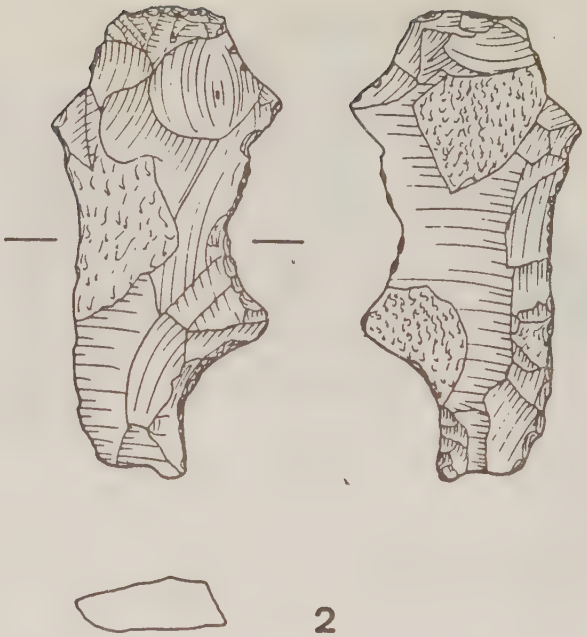

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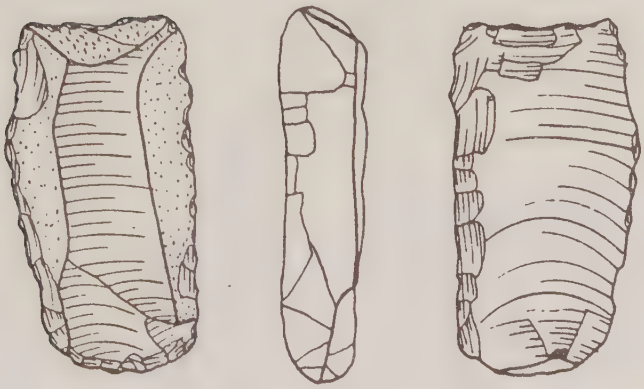

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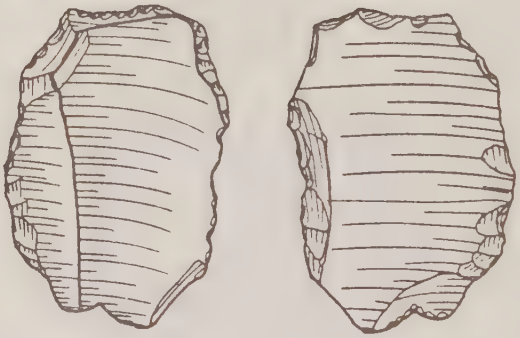

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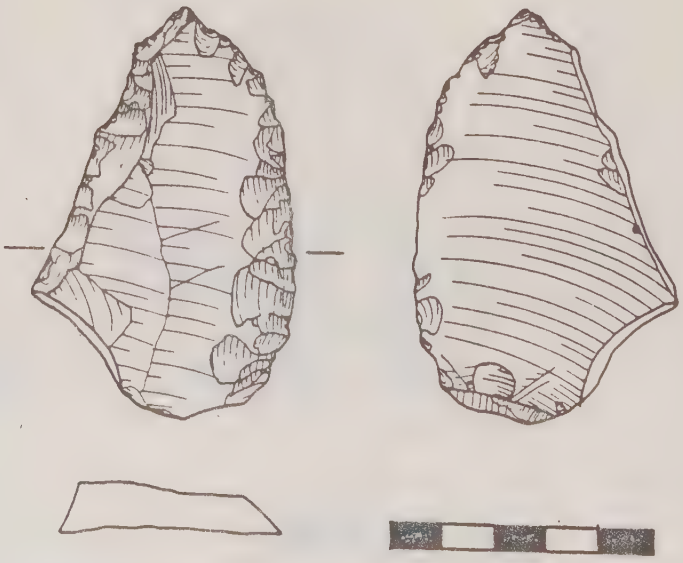

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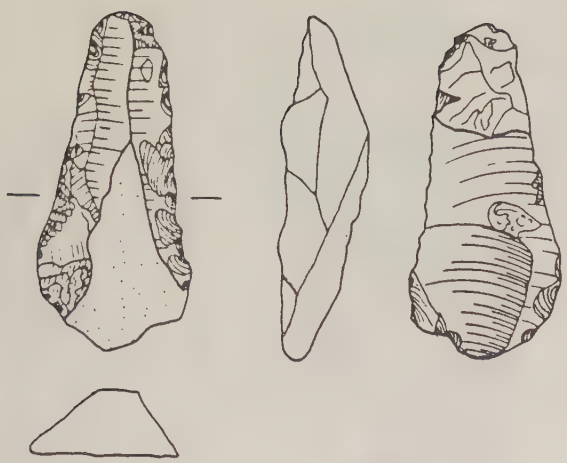
Side-scrapers



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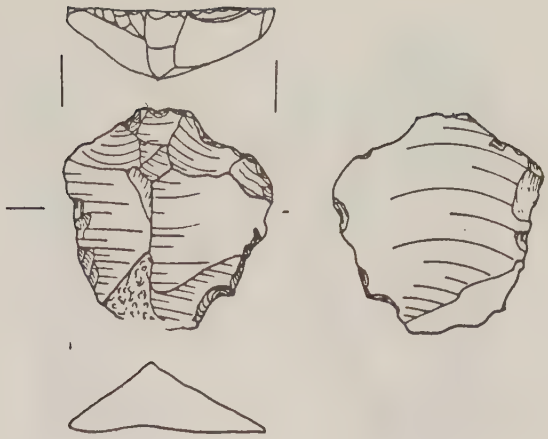

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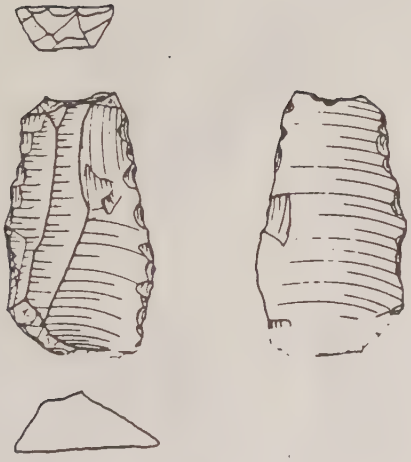

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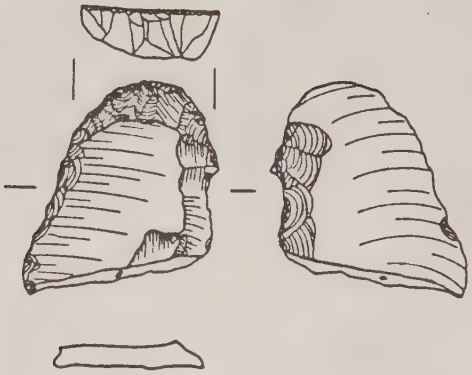

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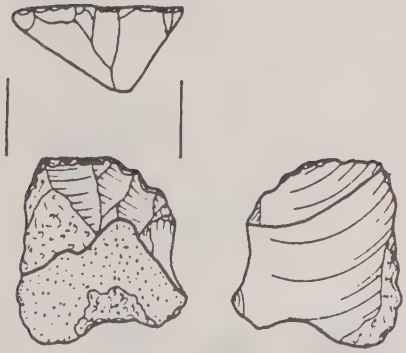

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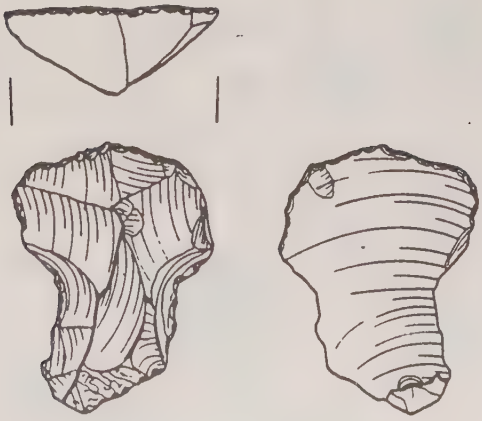

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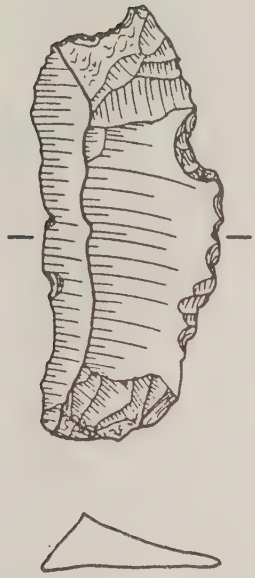
Side-scrapers



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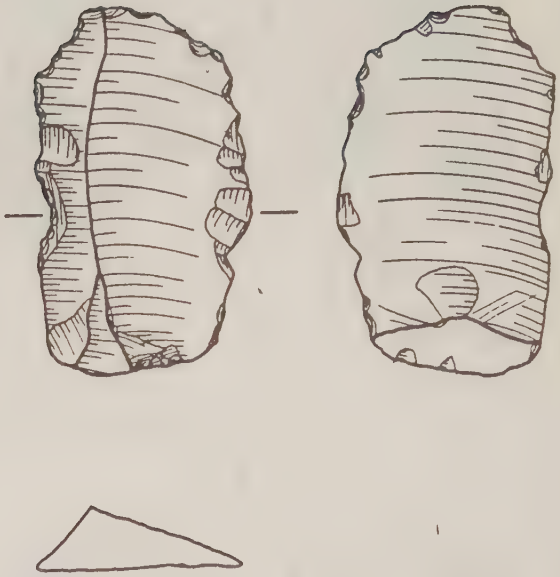

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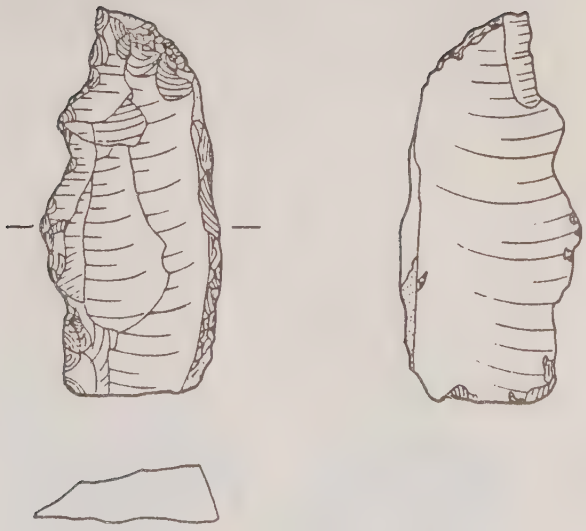

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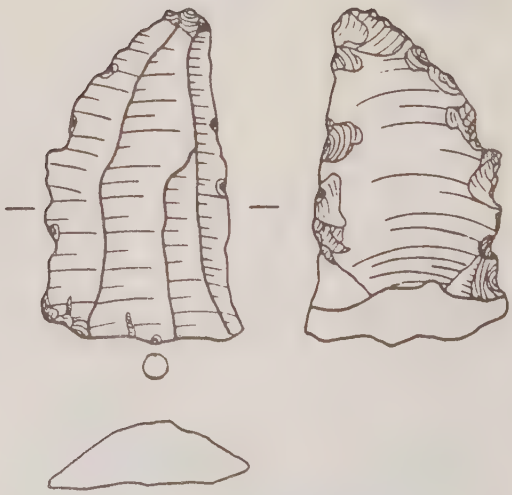

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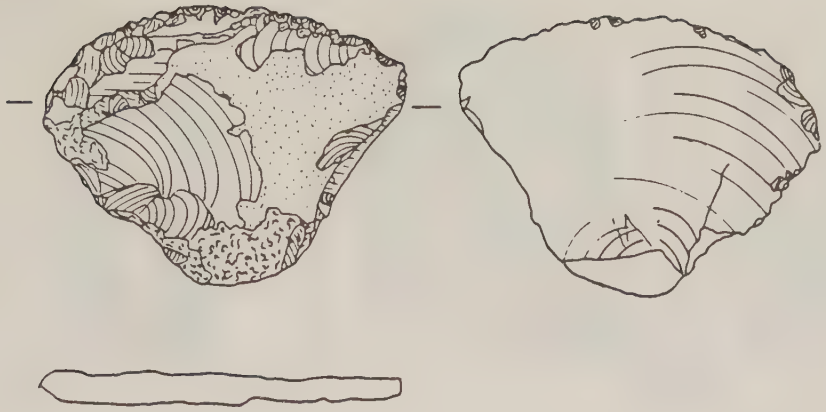

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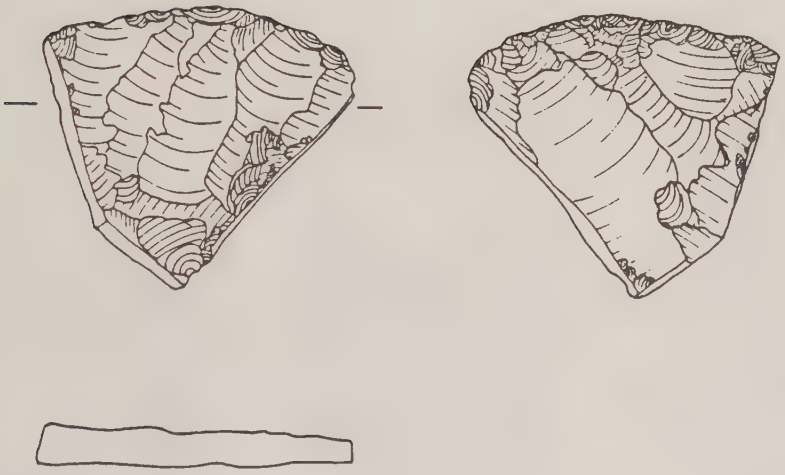

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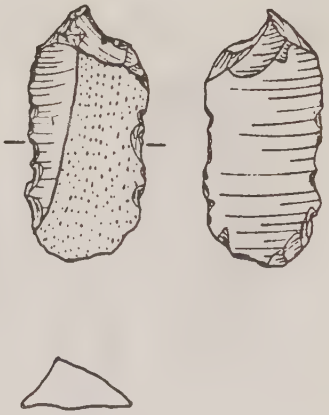

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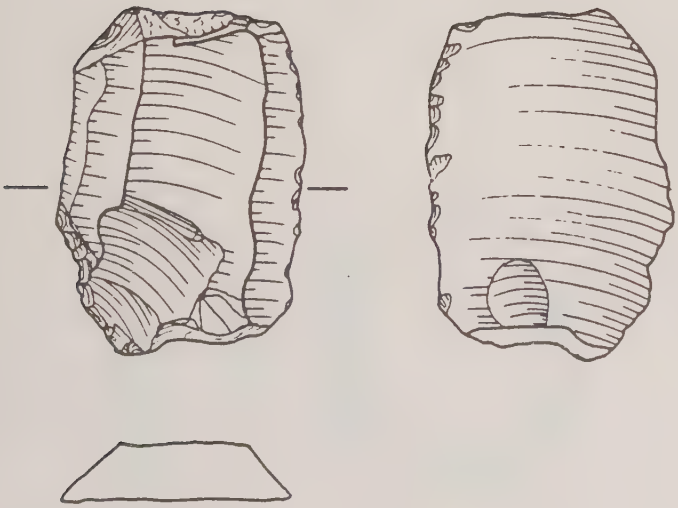

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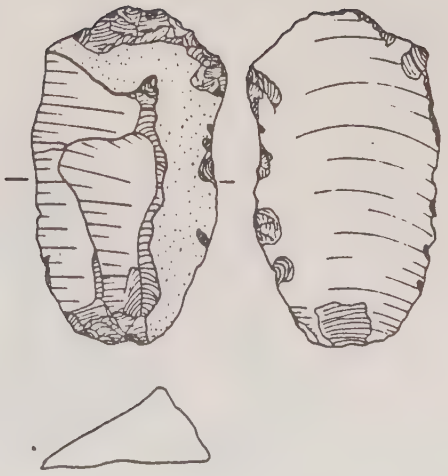
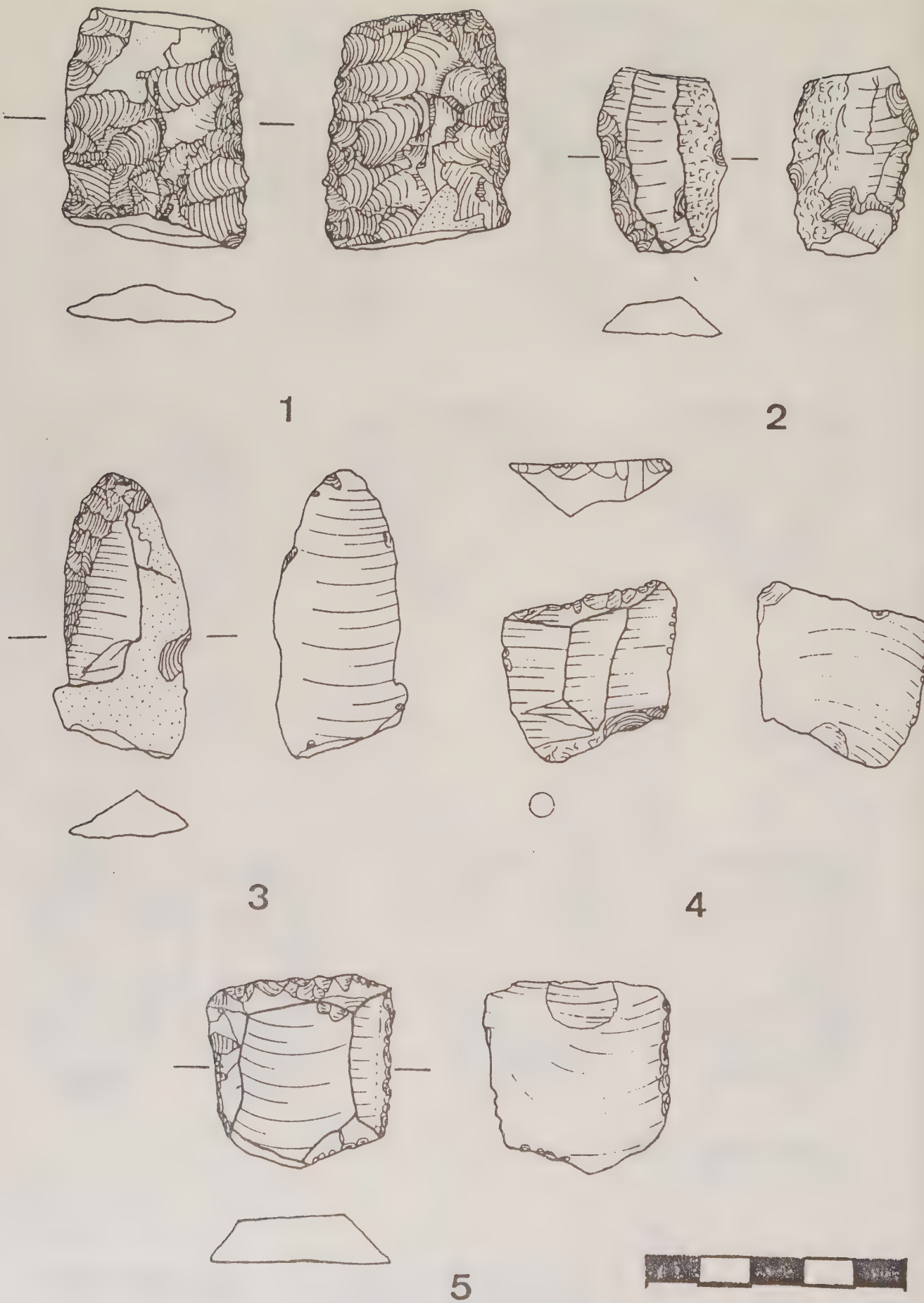
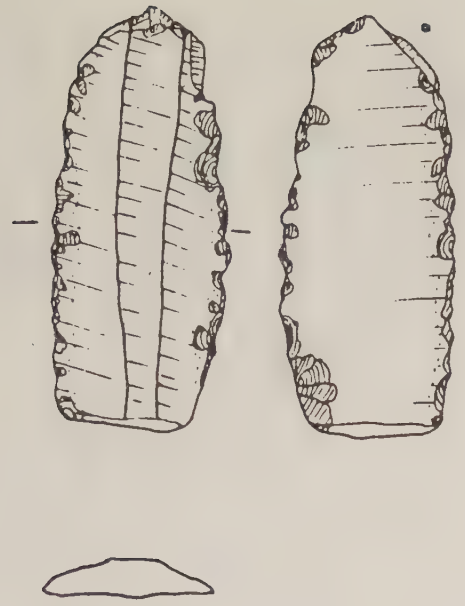


5

Fan-scrapers ( Nos. 1-2)
Knives ( Nos. 3-5)




Knives (Nos.1-3); Large-sickle blades (Nos.4-5)



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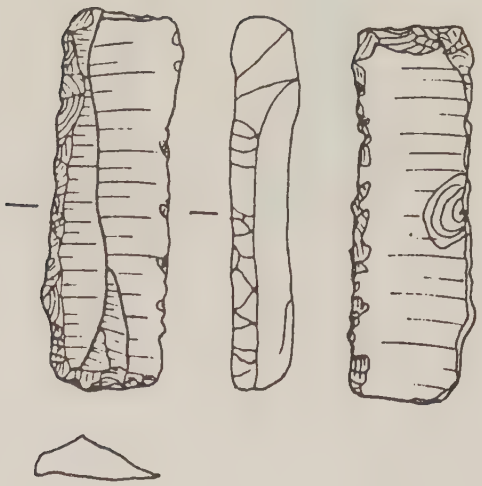

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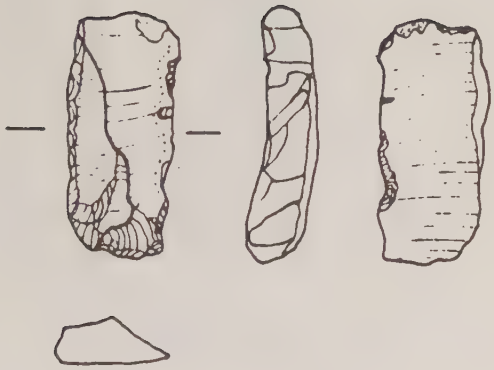

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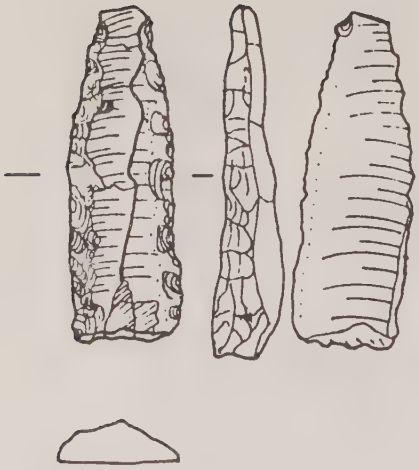

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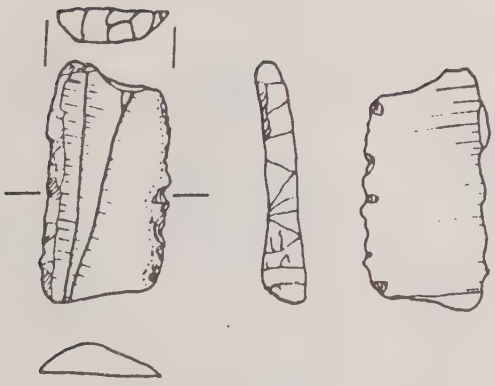

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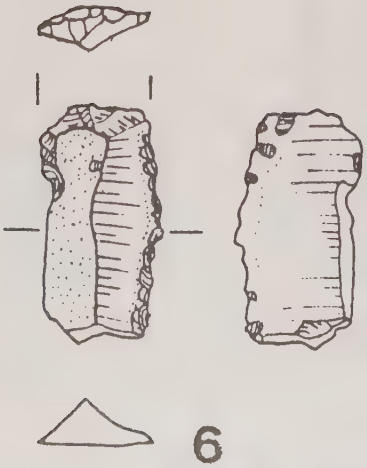

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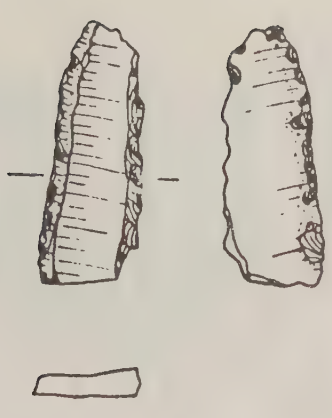
Sickle-blades



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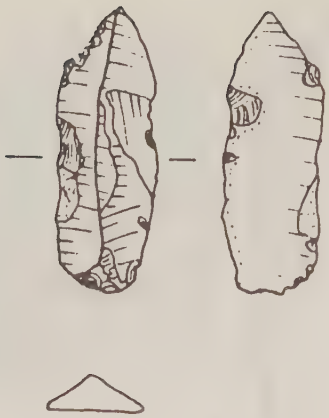

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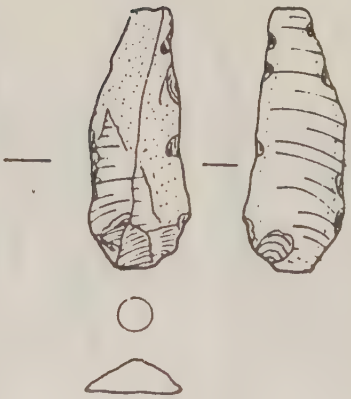

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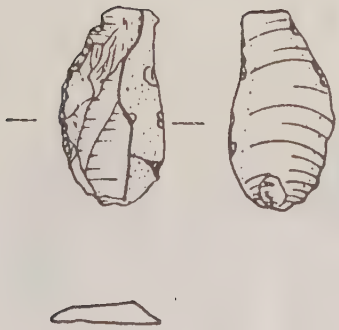

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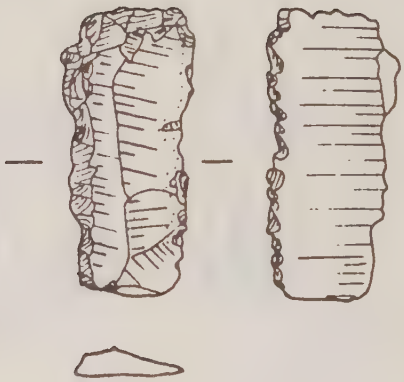

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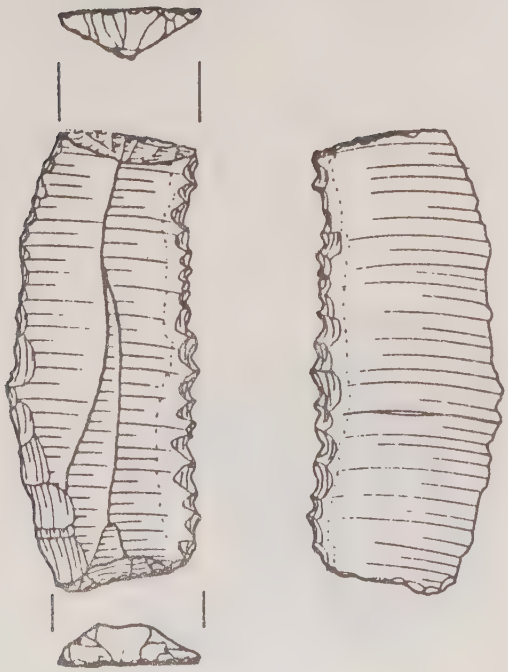

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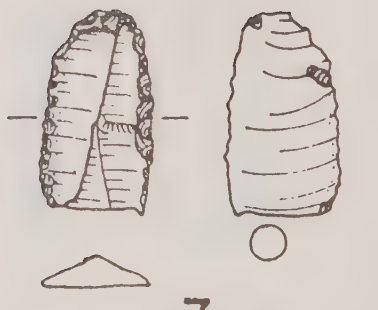

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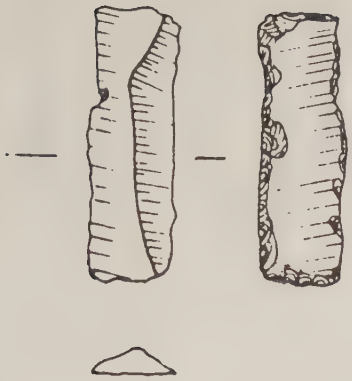
Sickle-blades



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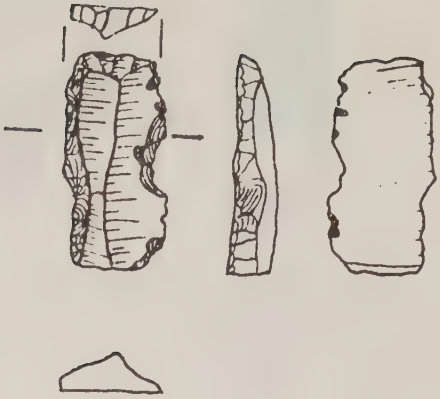

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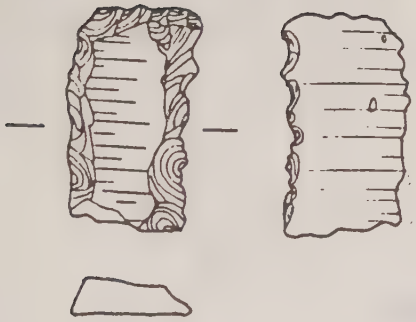

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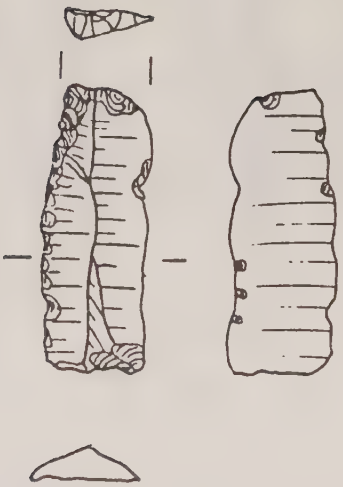

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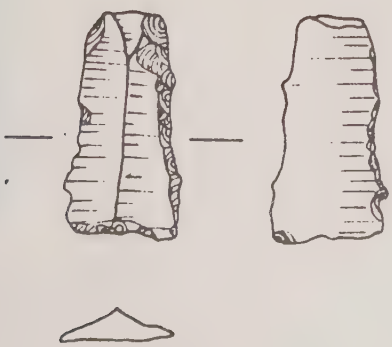

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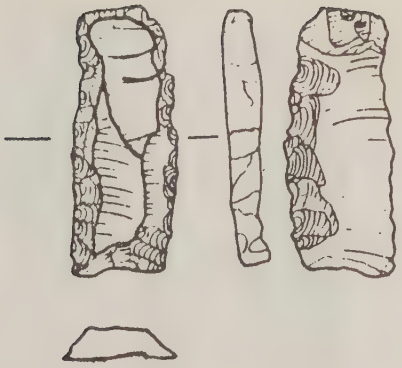

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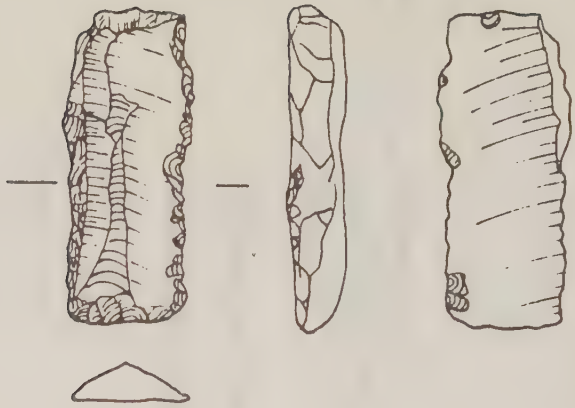

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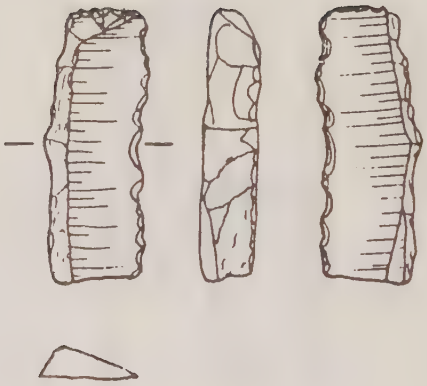

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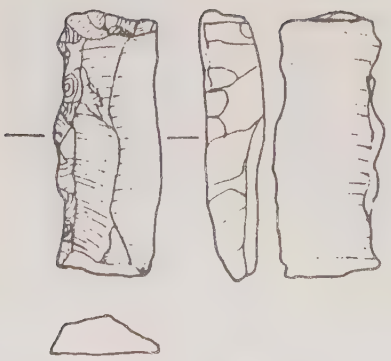

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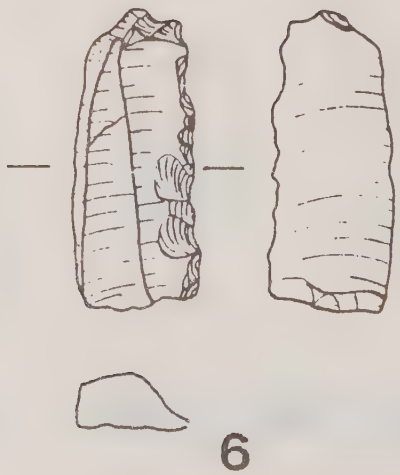

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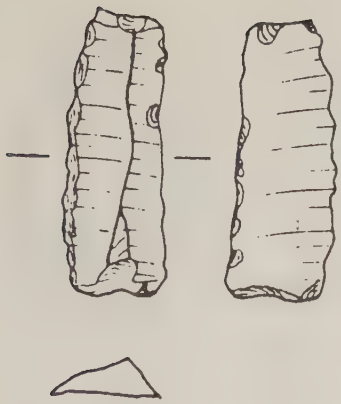
Sickle-blades



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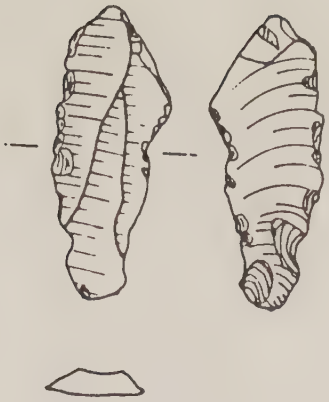

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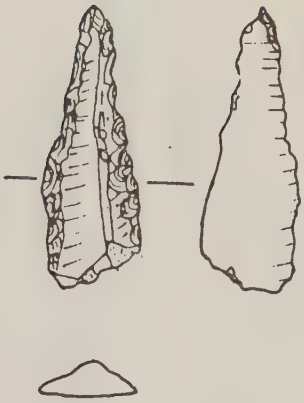

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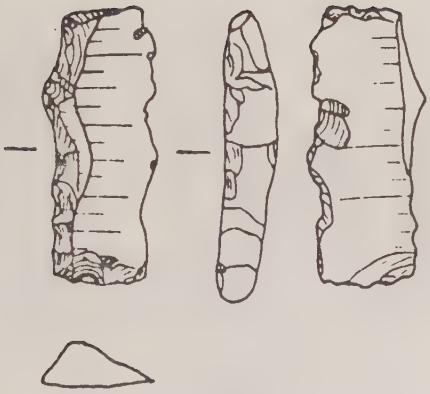

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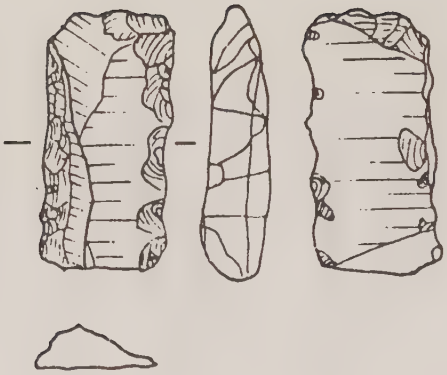

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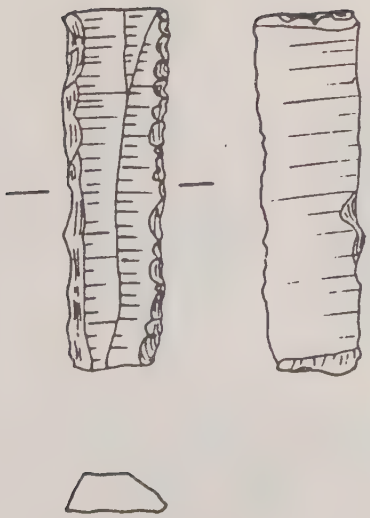

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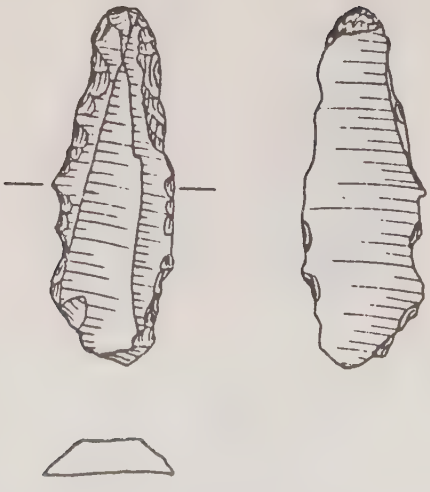

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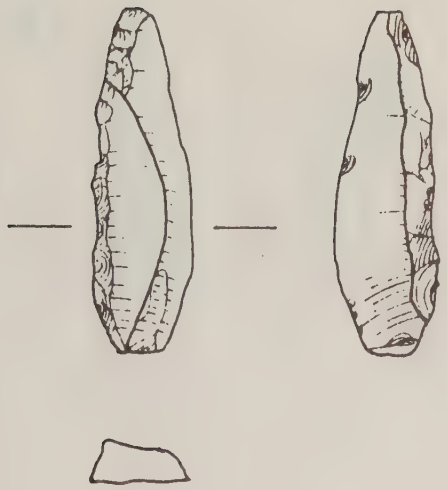
Sickle-blades



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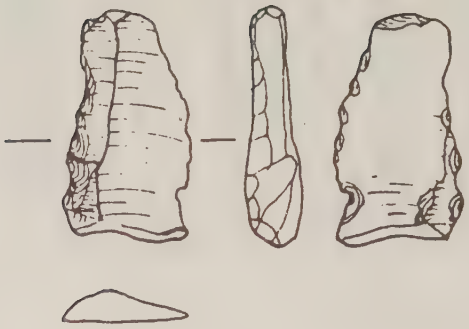

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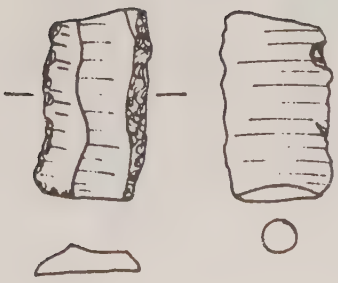

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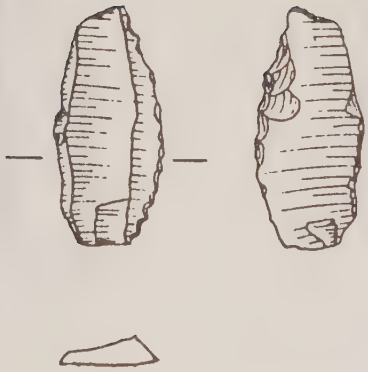

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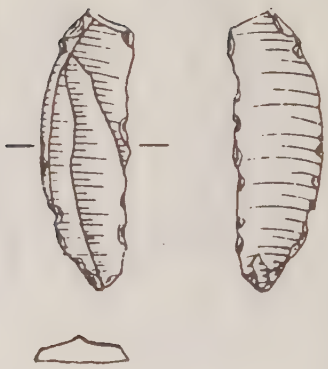

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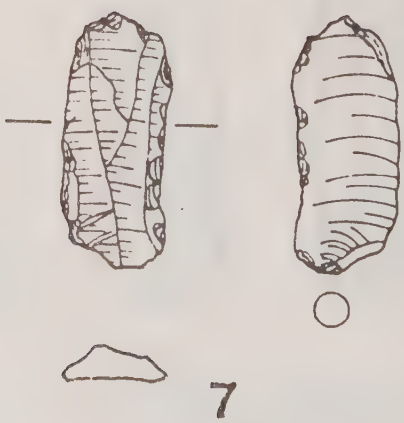

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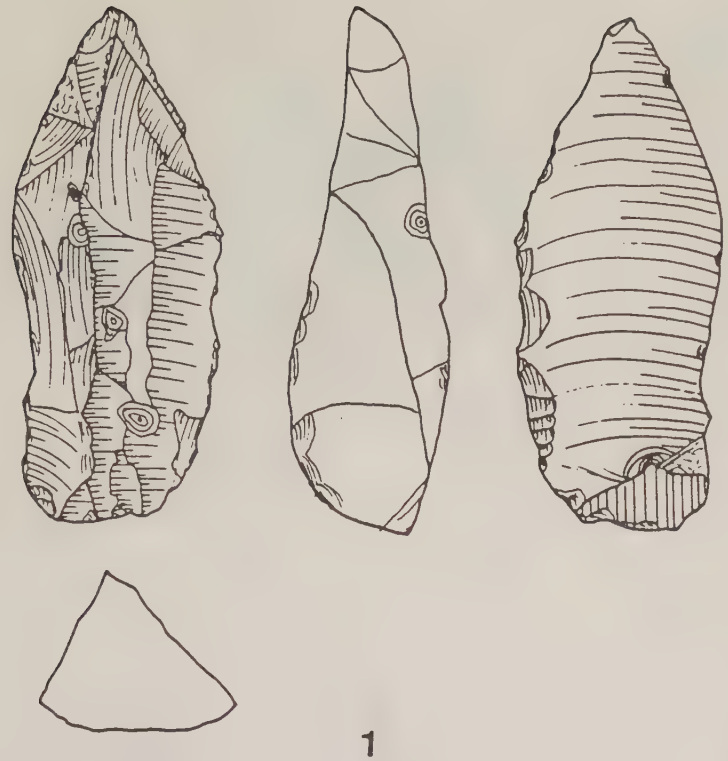
Sickle-blades

Pl. 77



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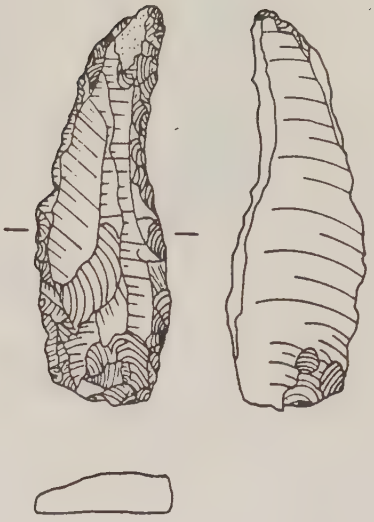

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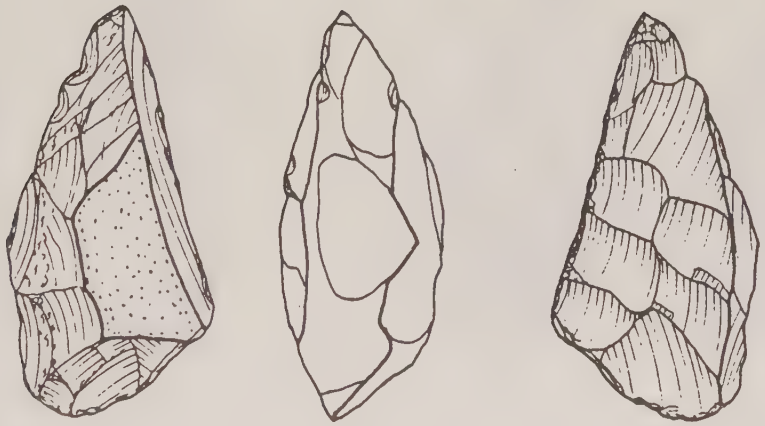

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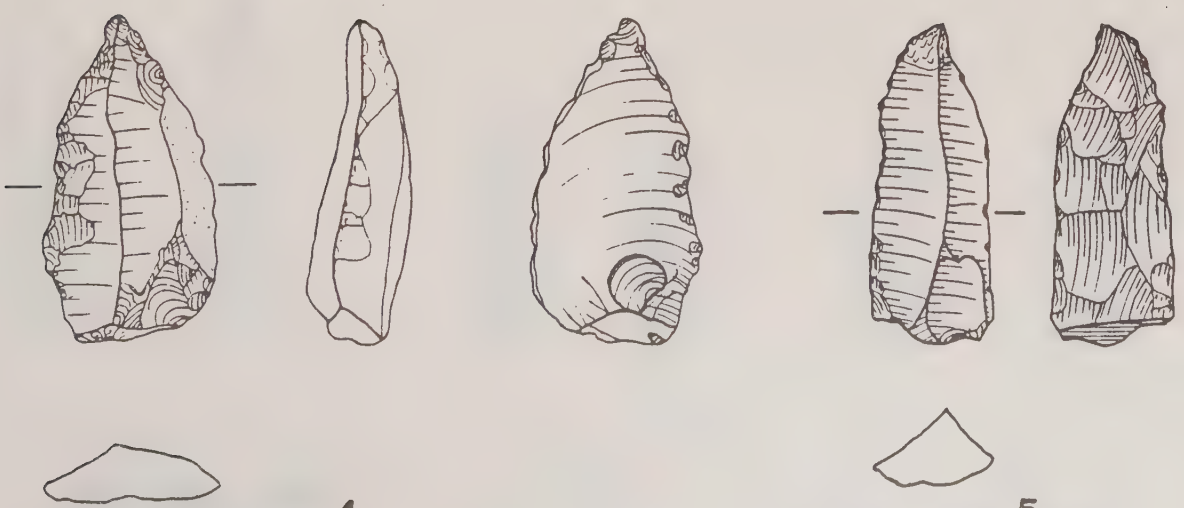

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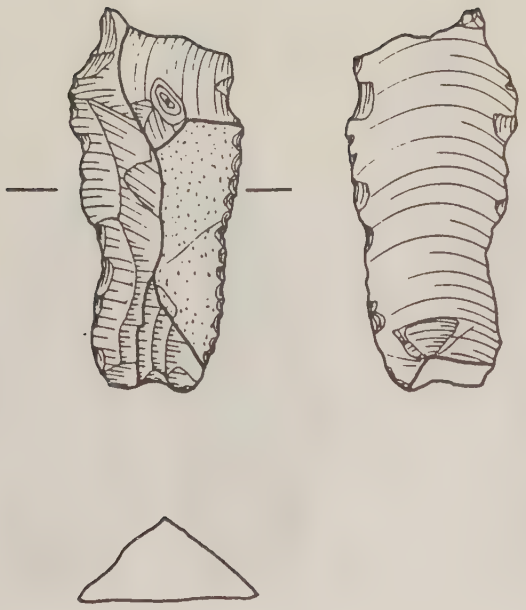

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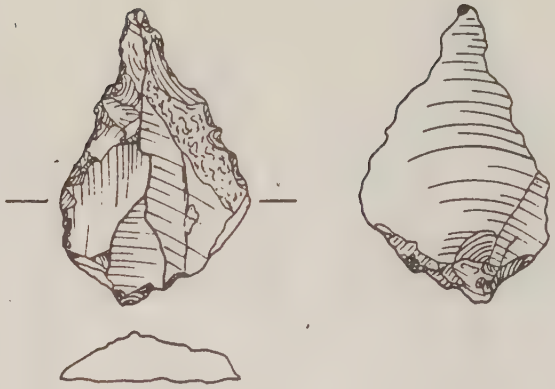

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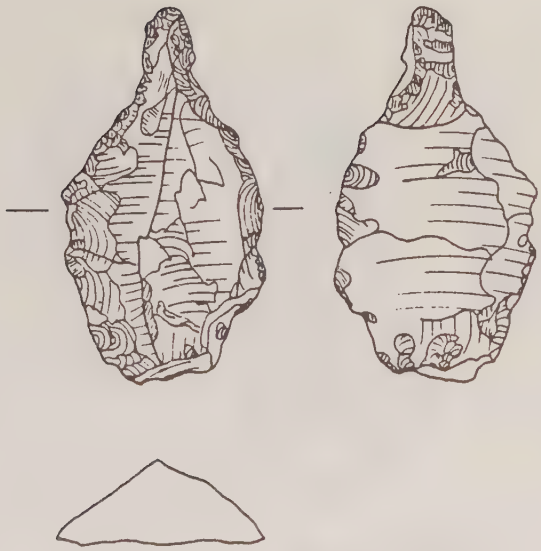

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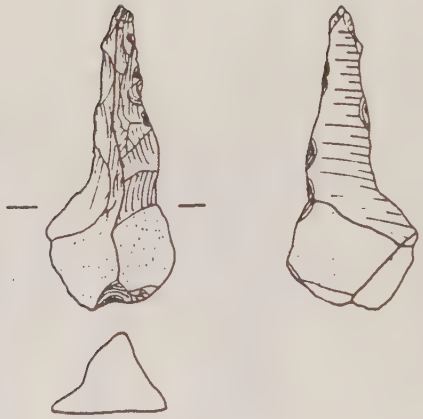

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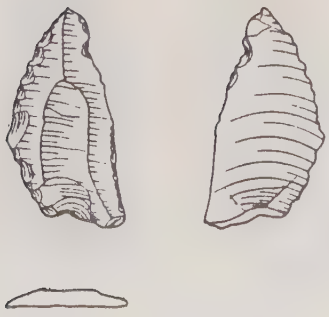

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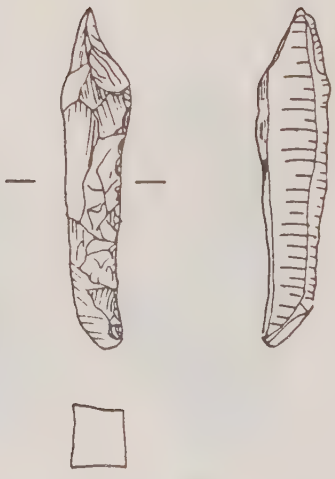

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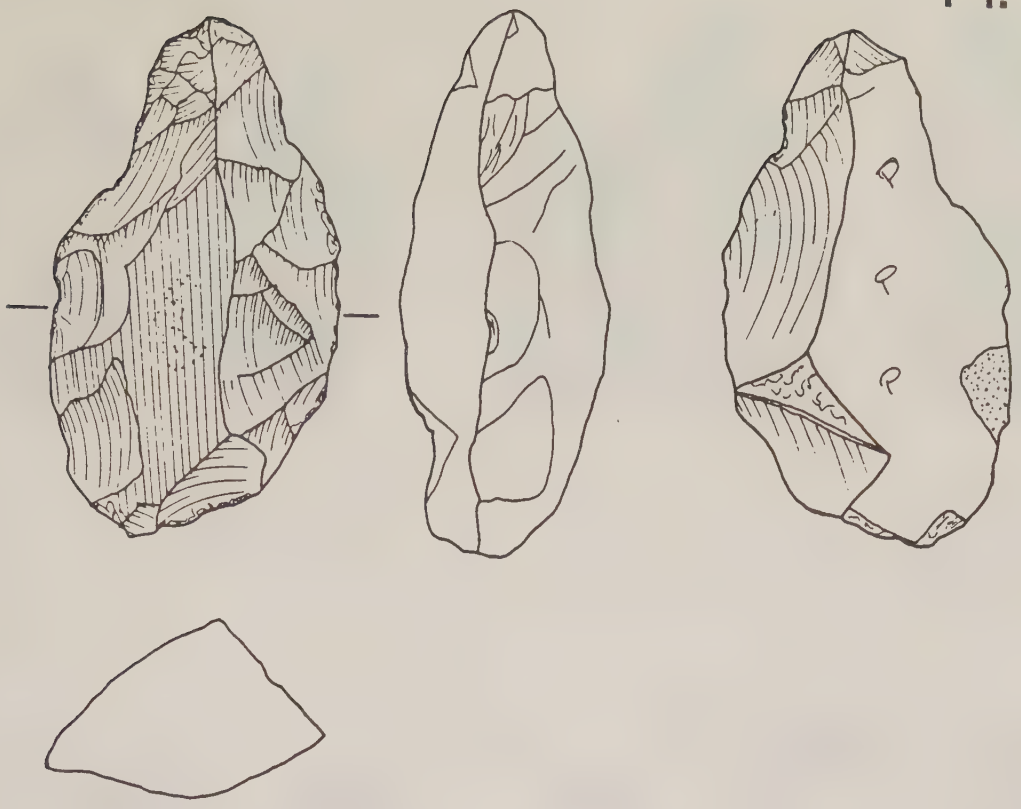
Borers



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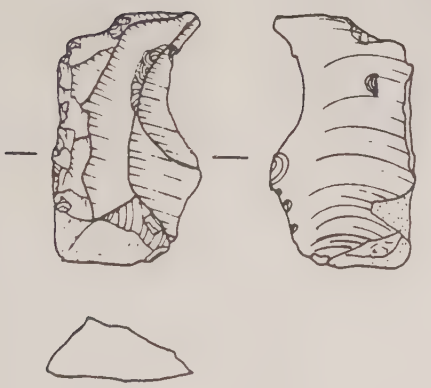

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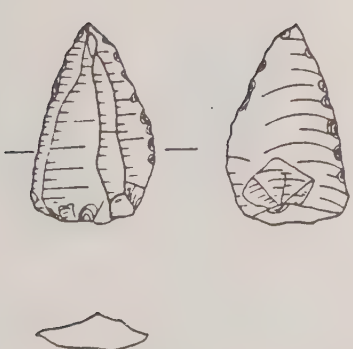

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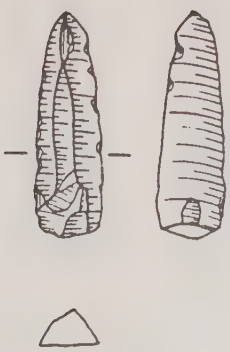

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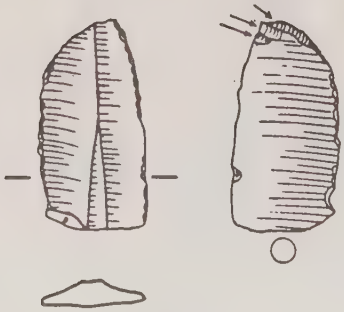
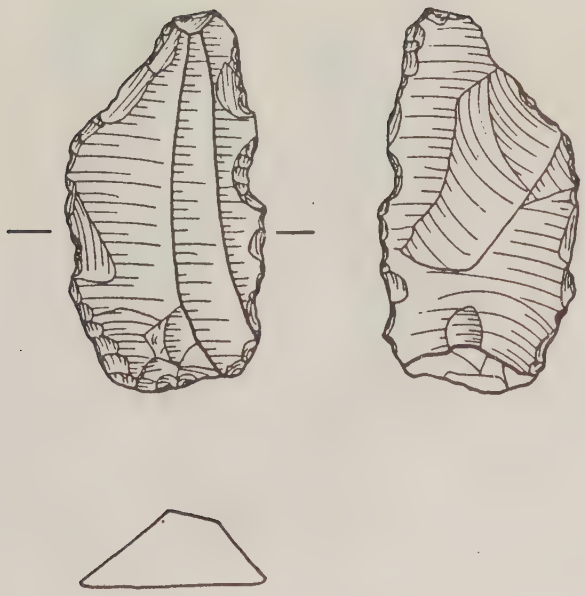


6

Pick (No.1)
Pointed tools (Nos.2-5)
Burin (No.6)



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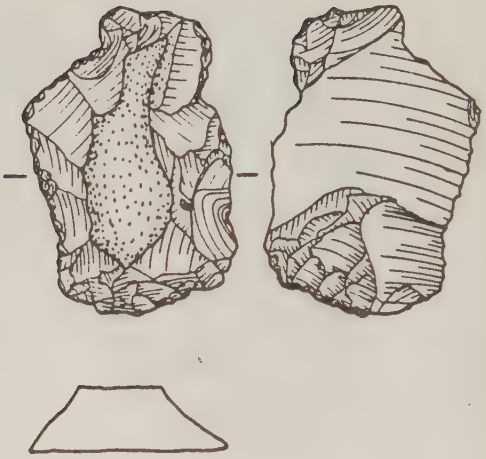

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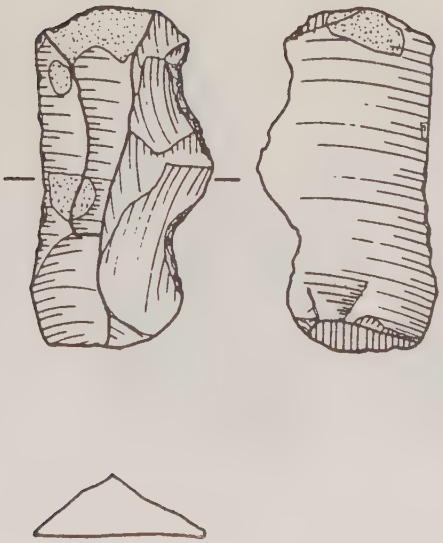

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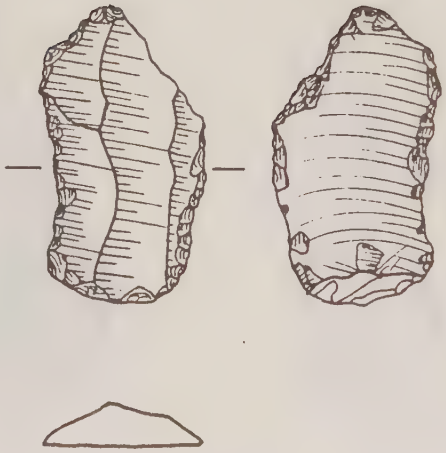

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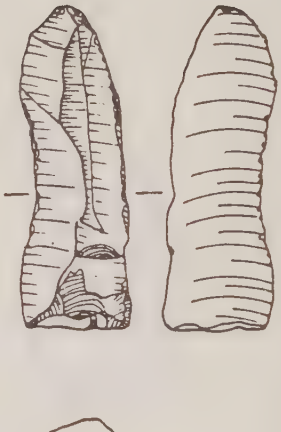

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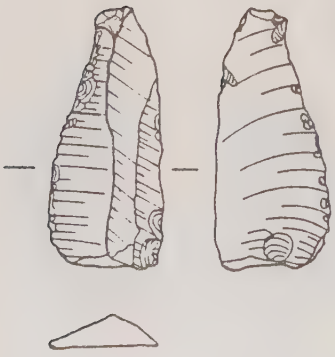

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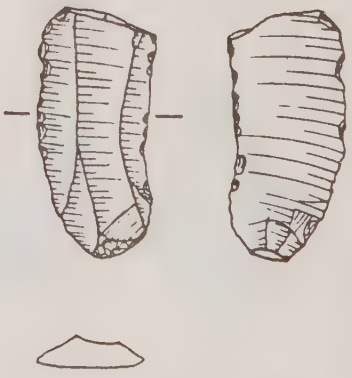
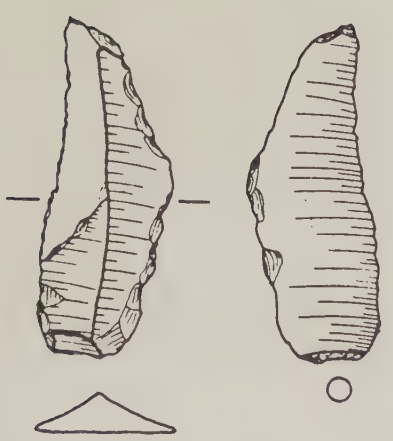


8

Retouched pieces



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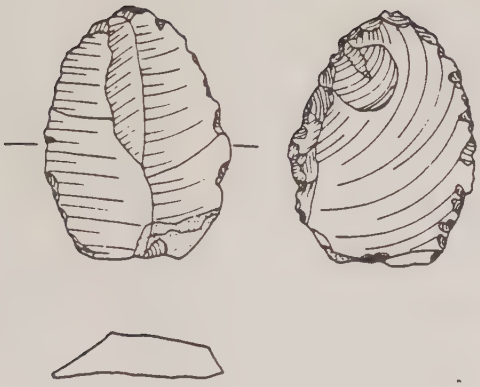
2

3



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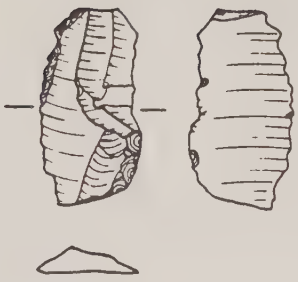

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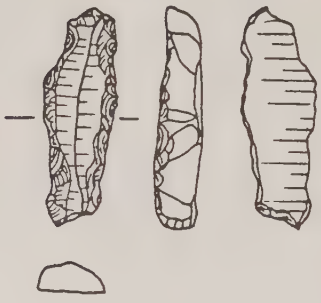

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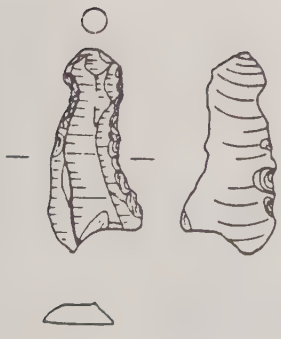

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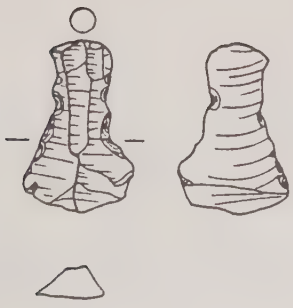

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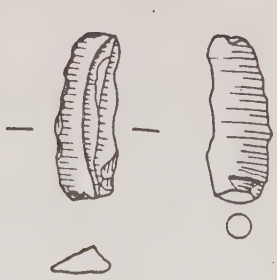

9

Retouched pieces

# LEBENSLAUF

Ich wurde im Jahre 1950 als Sohn des Angestellten Abdel-Kafi und seiner Frau Mariam in Nouba in Jordanien geboren. Ich habe noch sechs Geschwister.

Von 1956 bis 1961 besuchte ich die Volksschule in Nouba. Von 1961 bis 1964 besuchte ich die Mittel-Schule in Amman. Da ich gute Noten erzielte, sollte ich drei Jahre das Gymnasium besuchen. Ich wechselte deshalb 1964 in das Gymnasium "Al-Hussein Secondary School". 1967 habe ich dann die Reifeprüfung mit Erfolg bestanden.

1967 bis 1971 studierte ich an der Universität in Amman Archäologie, wo ich den Grad B.A. erzielte.
1971 bis 1973 habe ich als "Museum Curator" in Amman gearbeitet. 1973 bis 1977 habe ich Archäologie an o.g. Universität weiterstudiert, wo ich den Grad M.A. erzielte.
Meine M.A. Arbeit ist über "The Late Bronze Age Pottery in Jordan (East Bank). Mein Doktorvater war Prof. Dr. J. Sauer, der ehemalige Direktor des "American Center of Oriental Research" in Amman. Während dieser Zeit habe ich auch im Museum der Universität in Amman gearbeitet.

Von 1969 bis 1977 habe ich folgende Aktivitäten mitorganisiert und geforscht:

| | |
|---|---|
| 1969: | Ausgrabung in Sweifyeh bei Amman |
| 1972: | Organisierung des Museums der jorfanischen Universität in Amman |
| 1973: | Ausgrabung von Tell Siran bei der Universität Amman |
| 1974: | Ausgrabung durch "Andrews University", USA, in Hesban im Süden von Amman |
| Winter 1975: | "Survey" im Jordan Tal |
| Frühling 1975: | Ausgrabung in Um el-Rujum |

| | |
|---|---|
| Sommer 1975: | Ausgrabung in Jerash |
| Sommer 1976: | die zweite Campaign in Jerash |
| Frühling 1977: | Ausgrabung von Tell el-Mazar im Jordan Tal |
| Sommer 1977: | Ausgrabung in Sahab |

Am 6.10.1977 habe ich Jordanien verlassen, um in der Bundesrepublik Deutschland zu promovieren. Dies war mir möglich aufgrund eines Austauschprogramms des Deutschen Akademischen Austauschdienstes.

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Dissertationen